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Services Industries in Georgia: Outlook for the 1980s

Phillip A. Cartwright

Over the past decade, the United States and Georgia economies have been moving from the production of goods in the manufacturing, construction, agriculture, and mining sectors toward the production of services in the retail and wholesale trade; finance, insurance and real estate; transportation, communication, and utilities; services; and government sectors. In 1967, 67.4 percent of nonagricultural employment in the nation was in the various service industries; in 1981, the share of the services industries had risen to 72.8 percent. The annual rate of growth in employment in the services industries between 1967 and 1981 was 2.6 percent as opposed to the 2 percent annual average growth rate for total nonfarm employment. Over the same period, the share of nonagricultural employment in Georgia's services industries rose from 68 5 percent in 1967 to 72.6 percent in 1981. The annual average rates of employment growth in the services industries and in the nonfarm sector were 2.9 percent and 2.5 percent, respectively.

This article focuses upon economic activity in the services industries in Georgia. It describes the structure of Georgia services industries, presents a brief overview of the intermediate-term outlook for the state's services sector, and considers some of the pros and cons of living in an economic environment oriented toward the production of services.

STRUCTURE OF GEORGIA'S SERVICES INDUSTRIES

The distribution of employment across the services industries as a percentage of total nonfarm employment is shown in Table 1. Nearly 73 percent of Georgia's nonagricultural employment was in the services industries in 1981. About the same proportion characterized the nation's economy. Compared with the United States, Georgia is relatively high in the transportation, communication, and utility sector, and the government sector, but relatively low in the finance, insurance, and real estate, and services sectors.

Table 2 shows the distribution of real personal income across the services industries as a percentage of total nonfarm real income. The personal income data reveal the same basic patterns as those indicated by the employment figures. One notable exception is that while the share of Georgia's employment in wholesale and retail trade is about the same as the proportion in the national economy, the share of real personal income attributed to trade in Georgia is moderately

Table 1
Distribution of Employment in Services Industries
As a Percentage of Nonagricultural Wage and Salary Employment
Selected Years

Industry Group	1967		1970		1981	
	U.S.	Georgia	U.S.	Georgia	U.S.	Georgia
Total Services	67.4	68.5	69.2	69.0	72.9	72.6
Transportation, Communication, Utilities	5.9	5.6	5.8	5.9	5.4	6.1
Wholesale and Retail Trade	19.1	17.4	19.8	13.6	21.5	21.7
Finance, Insurance, Real Estate	4.5	3.8	4.9	4.3	5.7	5.0
Services	17.2	17.3	17.7	17.1	20.9	17.8
Government	20.7	24.4	21.0	23.1	19.4	22.0

Sources: Regional Economic Information System, Bureau of Economic Analysis, "Number of Full- and Part-Time Jobs" (August, 1982), (1967, 1970 data); "Employment by Type and Broad Industrial Sources, 1976-81," Table 25.00 (April 1983), (1981 data).

Table 2
Distribution of Real Personal Income in Services Industries
As a Percentage of Nonfarm Real Personal Income
1972 Dollars

Industry Group	1960		1970		1981	
	U.S.	Georgia	U.S.	Georgia	U.S.	Georgia
Total Services	60.6	66.8	64.0	67.2	65.6	69.9
Transportation, Communication, Utilities	8.0	8.2	7.5	8.2	7.9	10.2
Wholesale and Retail Trade	18.6	20.6	17.3	19.2	16.6	19.5
Finance, Insurance, Real Estate	5.4	5.4	5.4	5.5	6.0	5.6
Services	13.8	13.5	15.9	13.4	18.5	15.5
Government	14.8	19.1	17.9	20.9	16.6	19.1

Sources: "U.S. Personal Income by Major Sources," REIS, BEA, August 1982 (1950 data), "State Survey Table, U.S." (Personal Income), REIS, BEA, August 1982 (1960, 1970), "U.S. Personal Income by Major Sources," REIS, BEA, April 1983 (1981 data).

"Personal Income by Major Sources, Georgia," REIS, BEA, August 1982 (1950 data), "State Survey Table, Georgia," (Personal Income), REIS, BEA, August 1982 (1960, 1970) "Personal Income by Major Sources, Georgia," REIS, BEA, April 1983 (1981 data).

Survey of Current Business, July 1982, Revised Estimates of the National Income and Product Accounts," Table 7.1 (1981); BEA, *The National Income and Product Accounts of the United States, 1929-76: Statistical Tables* (September 1981). Table 7.1 (1950, 1960, 1970).

Table 3
Distribution of Employment in the Other Services,
Georgia and United States, 1981

Industry Group	Total Employees			
	Georgia		U.S.	
	Percent	Number	Percent	Number
All Services	100.0	420,277	100.0	20,055,000
Hotels and Other Lodging	7.0	29,470	5.7	1,140,000
Personal Services	5.0	21,118	4.6	916,000
Private Households	18.3	76,996	8.0	1,606,000
Business and Repair Services	21.9	91,902	20.6	4,130,000
Amusement, Recreation, Motion Pictures	3.5	14,754	5.0	1,005,000
Professional, Social and Related Services	44.3	186,037	56.1	11,258,000
Medical and Other Health Services	19.5	82,089	27.8	5,569,000
Legal Services	2.3	9,812	2.7	533,000
Private Educational Services	5.7	24,002	6.6	1,318,000
Social Services	4.5	18,778	5.7	1,147,000
Museums	0.1	236	0.2	35,000
Nonprofit Membership Organization	7.3	30,675	8.0	1,612,000
Miscellaneous Services	4.9	20,445	5.2	1,044,000

Source: Regional Economic Information System, Bureau of Economic Analysis, "Number of Full- and Part-time Jobs," Georgia and United States, (August 1982).

Table 4
Wages and Salaries per Employee in Georgia Industries, 1981

Industry Group	Wages/Salary Per Employee ($)
Mining	18,566
Construction	15,177
Manufacturing	14,862
Transportation, Communication, Utilities	22,184
Wholesale Trade	18,945
Retail Trade	9,351
Finance, Insurance, Real Estate	15,791
Services	10,674
Government	13,398

Source: Regional Economic Information System, Bureau of Economic Analysis, "Detailed Components of State Personal Income," Georgia (August 1982); "Number of Full- and Part-time Jobs," Georgia (August 1982).

(Procedure: WSPE = wages and salaries for each industry divided by number of full- and part-time jobs for that industry).

above the percentage recorded at the national level.

The distribution of employment across subsectors within the services sector is shown in Table 3. This includes restaurants, health care, social services, and various professional services. Coincident with the growth of Atlanta as a hub for business activity, it is likely that there will be an increase in the relative importance of this sector as a major source of employment gains; therefore, consideration of the composition of the sector in terms of employment is warranted. Compared to the U.S., Georgia's percentage of employment in the hotels and other lodging, personal services, private households, and business and repair services components is higher. It is notable that the share of employment in the professional, social, and related services is well below that of the national economy. Within that subsector, the largest disparity between employment shares in Georgia and in the United States is in the medical and other health services sector. Here, Georgia's share of services employment is over 8 percent below the share computed for the nation.

The services sector employs a relatively high proportion of part-time and unskilled workers, and thus, the wages and salaries generated per worker tend to be low. Table 4 shows that wages and salaries per worker in the services group in Georgia was $10,674 in 1981, and that only in retail trade was the annual per worker salary lower. Moreover, Table 5 indicates that in the relatively important private households subsector in which 18.3 percent of service sector workers were employed, the annual 1981 per worker salary amounted to $3,459.

For the most part, services are provided to local populations, and so services traditionally locate near those populations. As a result, services industries in Georgia are distributed around the state. However, activity in the broadly defined sector is becoming increasingly concentrated in the state's metropolitan areas, especially in Atlanta.

THE OUTLOOK FOR SERVICES

In terms of growth in nonfarm employment and real personal income, on average Georgia has fared better than the United States over the period 1970-1981. Tables 6 and 7 indicate that for the all nonfarm industries category, annual average growth rates in employment and real personal income in the state exceeded the average growth rates of the national economy, and the growth rate differentials between the broadly defined services industries in Georgia and the U.S. were generally larger than that recorded for the all industries category. The only industries exhibiting average employment growth at the national level in excess of that in Georgia were services and government.

There is little doubt that growth of the services industries has contributed significantly to Georgia's increasing prosperity over the past decade, and sustained economic activity during the recent recession. Over the next ten years it is likely that the pace of economic growth in Georgia will continue to exceed that of the nation's economy, however, the rate of

Table 5
Wages and Salaries per Employee in Georgia Service Industries, 1981

Industry Group	Wages/Salary Per Employee ($)
All Services	10,674
Hotels, Other Lodging	9,031
Personal Services	9,009
Private Households	3,459
Business, Repair Services	12,409
Miscellaneous Business Services	12,285
Auto Repair, Services, Garages	12,070
Miscellaneous Repair Services	14,560
Amusement and Recreation, Incl. Motion Pictures	8,510
Amusement and Recreation Services	8,526
Motion Pictures	8,449
Professional, Social and Related Services	13,424
Medical and Other Health Services	14,814
Legal Services	16,927
Private Educational Services	9,900
Social Services	7,753
Museums	8,102
Nonprofit Membership Organization	10,086
Miscellaneous Services	20,575

Sources: Regional Economic Information System, Bureau of Economic Analysis, "Detailed Components of State Personal Income," Georgia (August 1982); "Number of Full- and Part-time Jobs," Georgia (August 1982).

(Procedure: WSPE = wages and salaries for each industry divided by number of full- and part-time jobs for that industry).

Table 6
Annual Average Rates of Growth in Nonagricultural Employment, 1970-1981

Industry Group	Annual Average U.S.	Rate of Growth Georgia
All Industries	2.0	2.4
Transportation, Communication, Utilities	1.2	2.9
Wholesale and Retail Trade	2.8	3.9
Finance, Insurance, Real Estate	3.5	3.8
Services	3.6	2.8
Government	2.9	2.0

Sources: Regional Economic Information System, Bureau of Economic Analysis, "Number of Full- and Part-time Jobs" (August 1982); "Employment by Type and Broad Industrial Sources, 1976-81," Table 25.00 (April 1983).

growth will diminish somewhat, and the magnitude of the differentials in the rates of growth of employment and real income will decline. It is likely that the traditional sources of the Georgia economy's strength, i.e., nondurable goods manufacturing and services, will continue to enhance the state's economic growth and development. It is also reasonable to expect activity in the durable goods manufacturing sector to increase. While employment in the services will grow throughout the 1980s, it is likely that the rate of growth will be below the annual average recorded for the past ten years. There are at least three reasons for the moderation in growth. First, demographic statistics indicate slower growth of the labor force. Second, the sector will achieve improvements in productivity due to improved data processing technology and education; and third, it appears as though the rapid growth of the government sector witnessed during the 1970s has ended. Lacking any major changes in government policy, employment in the government sector is expected to stabilize during this decade.

However, several challenges face the services industries. First, there is considerable potential for efficiency gains from automation and computerization. The extent to which services industries are able to improve profit margins and provide investment opportunities will depend upon the extent to which efficiency gains are realized. Second, the baby boom population will realize increased purchasing power as it reaches the prime income earning years. The trend toward later marriages, and a decline in the average household size poses challenges for the trade, insurance, and real estate industries.

Georgia's financial institutions will experience changes at the managerial level due to deregulation and easing of geographic restrictions on competition. The current movement toward greater sophistication on the part of consumers will continue over the decade. As it is the case for the other services industries, financial institutions are likely to realize significant changes in worker productivity due to technological developments.

Table 7
Annual Average Rates of Growth in Real Nonfarm Personal Income, 1970-1981 (1972 Dollars)

Industry Group	Annual Average U.S.	Rate of Growth Georgia
All Industries	2.3	3.3
Transportation, Communication, Utilities	2.9	5.4
Wholesale and Retail Trade	2.0	3.5
Finance, Insurance, Real Estate	3.2	3.5
Services	3.8	4.7
Government	1.6	2.4

Sources: "State Survey Table, U.S." (Personal Income), REIS, BEA, August 1982; "U.S. Personal Income by Major Sources," REIS, BEA, April 1983.

"State Survey Table, Georgia," (Personal Income), REIS, BEA, August 1982; "Personal Income by Major Sources, Georgia," REIS, BEA, April 1983.

Survey of Current Business, July 1982, Revised Estimates of the National Income and Product Accounts," Table 7.1 (1981); BEA, *The National Income and Product Accounts of the United States, 1929-76:* Statistical Table 7.1.

Overall, the intermediate-term outlook for Georgia's services industries is good. In large part, their growth will be a function of population growth and the general economic climate. Migration to the Southeast is expected to grow throughout the 1980s. In addition, Atlanta's importance as a commercial center will increase, and the trend toward increased demand for services and away from tangible goods will continue.

CONCLUSIONS

Given an encouraging outlook for growth in the services sector over the next several years, it is worth mentioning some of the pros and cons associated with living in a service oriented economy. On the positive side, growth of Georgia's services sector translates into an increase in the number of new jobs. Many of these will provide employment for unskilled and part-time workers. Given the importance of Atlanta as a transportation hub for the Southeast, Georgia's services industries will benefit as economic activity gains momentum in other states in the region. In addition, there is evidence to support the hypothesis that services industries historically tend to be less sensitive to business cycle fluctuations. To the extent that the historical relationships hold throughout the 1980s, the stability of Georgia's economy is likely to be enhanced.

On the darker side, there are at least three factors to consider. First, continued relative growth of the sector has implications for the distribution of income. Taken as an aggregate, services industries tend to concentrate employment in above and below average jobs. Many of the job openings in the 1980s will be for positions with comparatively low wages, e.g., waiters, salesclerks, cashiers, and keypunch operators. Second, to the extent that services industries become more concentrated in urban areas, growth of the sector will not contribute to economic growth in rural areas. Third, services industries facilitate economic growth, and simultaneously rely upon growth in other sectors of the economy for their well-being. Thus, it is unlikely that service industries alone can buoy the state's economy. Major economic issues over the next few years will relate to the identification of vital supporting growth industries and to the implementation of economic policies designed to facilitate broadbased economic growth.

Phillip A. Cartwright is assistant professor of economics and director of the Georgia Economic Forecasting Project at The University of Georgia. This report was originally presented at the Workshop on Structural Change in the Southeast sponsored by the Federal Reserve Bank of Atlanta in July 1983.

Thinking About A Small Business Computer

A. Faye Borthick

A frequent topic of discussion among business people is whether and how to buy a small business computer. In this context, small business computer (SBC) denotes any computer system costing less than $50,000 suitable for business applications. This includes microcomputer systems starting in the $5,000 to $10,000 range and continues through minicomputer systems up to $50,000. At a minimum, an SBC must be capable of running rudimentary accounting systems, e.g., accounts receivable, accounts payable, and general ledger functions. Word processing is another common business function.

To some, the cultural hysteria about computing has reached epidemic proportions. The only antidote appears to be total immersion in computerdom long enough to discover what all the fuss is about. The hazard of doing so, however, may result in a permanent case of computing addiction as a way to conduct business. Seriously, computing is attractive because the advent of computer systems costing no more than an automobile make it possible for individuals to use computer power without having to spend a lifetime learning how to do it or depend wholly on platoons of technical specialists. It is now possible to be in control of computing use.

REASONS FOR WANTING A COMPUTER

Business people have always wanted to do business in a more effective manner. Still, some practices are acceptable simply because there seems to be nothing better available. In this decade, business people often have the uneasy sense that computing could somehow help them manage the information of their business. The barrage of articles and advertisements prompts consideration of whether computing might embody a better way of doing some tasks.

A frequent reason for turning to computing is the perceived inability to maintain financial and operational records essential to a business. Every businessperson remembers an occasion when a decision would have been obvious had the requisite information been more accessible. Sheer clerical overload alone is enough to warrant computing, and that was the primary motivation for computing use in earlier decades.

Businessowners can imagine how computing could help them obtain competitive advantages. For example, the owner of a small advertising agency can understand the benefit of such assistance in planning successive advertising series for clients based on viewer rating points. Then clients are billed for insertions, especially for repetitive placements. There may be hundred of insertions, each of which costs only a few dollars, but in aggregate the placements are sizeable. When interest rates were low, the agency paid publishers and radio and television stations and then billed clients, collecting from them on a monthly basis. Now the owner needs to lessen the agency's free float on billings to clients. An army of clerks for

Table 1
Estimated Transaction and Permanent Record Frequencies

Estimated Factor	Rate
Number of sales on account	1,300 per month except Nov. 2,700 for Nov.
Number of payments received	650 per month
Number of adjustments	50 per month
Number of different customers making sales or payments	700 per month
Number of customers making purchases within the last year	2,400
Number of customers with approved credit not making purchases within the last year	1,200
Number of delinquent accounts	175

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this purpose is inconceivable when computing could make it possible for existing personnel to do the job.

The current hysteria over computing has its excesses. In some cases, businesspeople feel compelled to apologize for not using computing. Indeed, there are some to whom a progressive image is crucial. For example, customers of discount houses for software and add-on components for microcomputers expect management and employees to use the products they sell. To do otherwise would be unthinkable. Of course, introduction of computing into a business implies substantial change in business procedures; therefore, getting the best results requires careful thought and planning beforehand. So here are some points to think about before making any decision.

THE FIRST STEP

A simple list of questions may help a person decide if a computer will augment business progress. For instance:

It is necessary?
Will it help the workload?
Will it generate the required information and reports?
Will it produce individual pieces of data?
Will it augment already existing information?
What are the benefits of obtaining additional information?
What dollar costs are incurred in gaining these benefits?
What personnel costs are at risk?

This self-study may seem irrelevant at first, but it will help clarify specific needs, so it should not be overlooked in the haste of making the purchase decision.

THE SECOND STEP

The second step is more tangible; that is to create facsimiles of the information and reports wanted from the computer. This is necessary simply to assure that all specifications and procedures can be translated into computer instructions. One of the ironies of the computer age is that it is unlikely that anything not explainable on paper will ever come out of a computer.

Once satisfied with paper prototypes of reports, describe them in narrative form, explaining what the information in the reports means; what calculations on numbers and manipulations of characters (e.g.,

Table 2
Character Counts: Sales and Payment Transactions

Data Item	Maximum Number Of Characters	Example
Invoice number	9	003427891
Customer identification number	6	002458
Date of transaction	6	08/09/83
Type of transaction	1	S (sale), P (payment)
Item number	7	8945220
Item description	20	Peach carrier 5x8 tan
Item quantity	5	20
Price per item	8	$23.50
Discount percent	3	.025
Shipping charges	6	$35.00
Net price	10	$493.25
Total for all items	81	

Table 3
Character Counts: Customer Permanent Record

Data Item	Maximum Number Of Characters	Example
Customer identification number	6	002458
Customer name	25	Five Points Store
Customer street address	20	240 Peachtree Circle
Customer city	20	Peachtree Orchards
Customer state	2	GA
Customer ZIP code	5	30602
Customer credit rating	3	AA
Balance due by month end	10	$2,108.30
Balance overdue for 60 days	10	$0.00
Total purchases year-to-date	10	$3,450.89
Date of last purchase	6	08/09/83
Total for all items	117	

Table 4
Estimation of Data Storage Space Required

Component	Transactions	Permanent Records
Number of sales on account: November	2,700	
Number of customers making purchases during the year		2,400
Number of customers with approved credit not making purchases within the last year		1,200
Frequency	2,700	3,400
Times the number of characters	× 81	× 117
Data storage in characters	218,700	397,800
Data storage in K bytes (1 K byte = 1,024 characters)	214	389

producing alphabetical lists) are necessary; the sequences of calculations and manipulations required in a reporting period; and how use of the information affects business effectiveness. If this sounds like work, it is. However, the lack of this rigorous an approach to planning for computing is the reason many computer systems never live up to their anticipated potential.

THE DATA

The next step is to estimate the volumes of information required to manage the business. First, estimate the number of each kind of transaction occurring in a period of time, for instance, the numbers of sales, work orders, and employees added to the payroll in a month. Then estimate the average numbers of permanent records the business maintains on a continuing basis, such as the numbers of customers, outstanding accounts receivable and payable, work orders, and inventory items. These two sets of numbers represent the volume of business.

Next, list the individual pieces of data needed in each kind of transaction and in each kind of permanent record. For each piece of data, count the number of characters required to specify the largest instance of each. A straightforward way to count in one character each for a letter of the alphabet, number, or special character. Notational characters such as dollar signs, decimal points, commas in dollar amounts, and slash marks in dates should not be counted. Now, organize the results of the estimation and counts in a table. To show how easily this is done, see Table 1. Remember, a transaction may be a sale or payment on account; the permanent record contains information on customers and sales history. Counting characters for individual data items in the hypothetical example may yield the results shown in Tables 2 and 3.

The reason for estimating transaction and permanent frequencies and counting characters is to discover the magnitude of data storage requirements in machine-readable form. Knowing the amount of data storage required is important in selecting a system size large enough for the intended applications but no longer than is necessary for a few years' growth. To do this, simply multiply the frequency by the number of characters, using the highest frequencies required anytime during the year. For instance, the frequency of the number of sales on account used in the calculation should be the figure for November since it has the highest number of sales (Table 4).

From the calculations, data storage for the transactions is 214K bytes (often expressed as simply 214K) and for the permanent records, 389K. Following the same procedure for other applications and adding the data storage requirements for all the applications gives the total minimum data storage required for the set of applications.

A FINAL WORD

The aim of this general discussion is to help a business owner or manager gain an understanding of personal readiness to introduce computing into the business, and to aid in discovering what requirements that particular business demands of a system. Still, there are other stages to come, such as evaluating hardware, software, service and vendor support, before the ultimate purchase. Though each phase may be as time consuming as the initial self-study, the results will be worth the effort.

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Help for Small Business

William C. Flewellen, Jr.

"Small business represents an important part of the American economy, and it is worth noting that independently owned businesses comprise about 40 percent of private sector employment. We must recognize that small business is vital to job creation, and that it is an important source of product and process innovations. There exists a great reservoir of export potential in the small business community and we need to make greater efforts to use this resource."

These statements in the latest *Small Business Report to the President* would not have been made thirty years ago because government recognition of small business as an important segment of the economy is new. Interest in this vital area began to grow in the 1960s as data indicating its importance became available. By the mid 1970s a major White House conference was held on the problems of small business. After that, persons engaged in small business organized to lobby Congress for equity. States established Offices of Advocacy for Small Business; legislation favorable to small business was drafted, and significant portions became law.

In collegiate education for business, the Small Business Administration (SBA) sponsored two extremely successful programs. The Small Business Institute made funds available to colleges and universities to provide free counseling to businesses with problems. By the late 1970s, the program involved 450 institutions and over 2,000 faculty and 20,000 students. It was recognized as a superior instructional vehicle by faculty and as a successful counseling activity by business. Curricula with emphasis on small business gained popularity, and soon, endowed chairs and distinguished professorships of small business became fairly common.

The other more visible program — the Small Business Development Center or SBDC — was created by the SBA in 1975. Starting with eight pilot programs in 1977, the concept has grown to include twenty-six states with functioning SBDCs. Discussions with additional states are currently in progress. The SBDC is a creative partnership of government, higher education, and business formed to address the problems of small business. Each center provides three basic services: consulting, continuing education, and research. A full-service center has additional activities including: programs for minorities and women; skills assessment; international trade; economic forecasting; commercial law information; capital formation; and innovation and product development.

The Georgia SBDC was one of the eight pilot units. Its central office is located at The University of Georgia and eleven district offices provide service in every part of the state. Four distinct service units compose the Georgia SBDC, each of which is described in the following sections.

SBDC UNITS

The *Management Information System* unit provides data needed for efficient management of the Georgia programs. This system proved so effective that the SBA contracted with the Georgia SBDC to install it in all SBDC states and to operate the system for the Small Business Administration. Twenty-three states now supply data to the system which, in turn, generates reports for these states and the SBA.

Table 1
SBDC Client Profile

Characteristic	Percent
Sex	
Male	65
Female	28
Race	
Black	23
White	74
Other minorities	3
Type of Business	
Mature	31
New	21
Pre-venture	48

Small business is

- 97 percent of the nation's business concerns
- 43 percent of the gross national product
- 48 percent of the national gross business product
- 64 percent of the nation's total dollar volume generated by wholesale trade
- 73 percent of the nation's total dollar volume generated by retail trade
- 57 percent of the nation's total dollar volume generated by services
- 76 percent of the nation's total dollar volume generated by construction
- 58 percent of the nation's private, nonagricultural work force

The *Counseling Unit* probably is the most known because it provides counseling to firms on an individual basis. Problems addressed cover all aspects of business, with cases generated by two major sources: referrals from satisfied clients and continuing education courses. The number of clients served in the last fiscal year increased to 4,000, up 29 percent over the previous year. More significant, however, is the increase in cases requiring more than twelve hours of counseling (83 percent), while cases involving less than twelve hours have jumped 67 percent. It is also interesting to note that the average gross revenue of firms counseled rose from $217,000 in 1977-1978 to $844,000 in 1981-1982, and the average number of employees increased from 4.5 to 14 in the same period. A client profile is given in Table 1.

A fairly elaborate system is used to evaluate counseling quality. At the conclusion of each case, the client is asked to evaluate the counseling received and the actual or expected impact upon the business. A summary of the 1981-1982 evaluations shows that 90 percent of the clients thought that the SBDC's plans and recommendations were understandable, practical, and useful. They also noted that their operations and efficiency improved while sales increased as a result of the business counseling.

The second phase of the evaluation examines the client's sales, profits, and employment for the year after counseling. Indications of the impact of SBDC recommendations include, on average, a 25 percent gain in sales and profits, and a 9 percent jump in employment (see Table 2).

Because public funds are used for SBDC support, public revenues generated are approximated to determine the ratio of revenues generated to funds expended. Table 3 indicates that $11.10 of government revenues were generated for each dollar spent. Further, less than 50 percent of the funds expended were spent on counseling. The rest of the money provided for 228 continuing education courses for over 6,000 participants, various research projects concerning small business problems, a minority business program, and an export expansion program.

The *Continuing Education Unit* provided over 300 courses for approximately 13,000 persons in 1981-1982, an increase of 33 percent over the previous year. Provided at a nominal charge, these two-hour sessions typically cost the participant $15. Topics covered during these courses range from cash flow management to shoplifting. Most of the instruction is provided by volunteers from the private sector, and three-fourths of the progams are co-sponsored by private organizations.

The *Research and Resident Instruction Unit* concentrates on three areas. First, the research section attempts to arouse faculty interest in problems of small business and assists in securing funding for the research. In addition, the SBDC staff in this section conducts in-depth studies of special projects such as the educational needs of the real estate industry, the role of small business in the national economy, and the climate for industry in a particular county. Current projects include a study of the operations of the Office of the Georgia Secretary of State to determine its impact on business and economic development, and a study of the business problems of establishing a medical practice in a rural community.

The unit also houses the Small Business Institute, its second area of concentration. The institute is responsible for referring business firm cases to faculty at seventeen Georgia colleges for use in classes of seniors or graduate students. Under faculty guidance, students hold on-site consultations with the business firm to determine and to solve particular problems. Last year, 156 firms were served in this manner.

Table 2
Impact of Counseling on Clients in 1980-1981
One Year Later

	Average Percent Change	Average Incremental Change	Average Change (N=700)
Sales	25.2	$268,804	$188,162,590
Employment	8.7	3.56	2,492
Profits	25.1	$ 9,497	$ 6,648,000

Table 3
Impact of SBDC Counseling in Georgia on Government Revenues, 1981-1982

	Estimated Tax Revenues[a] 1981-1982	Funds Expended by SBDC for All Programs[b] 1980-1981	Revenues Generated to Funds Expended
State	$6,600,000	$443,000[c]	14.90 to 1
Federal	3,330,000	450,000	7.33 to 1
Total	9,900,000	893,000	11.10 to 1

[a]Estimated tax revenues generated by increased sales, employment, and profits.

[b]Funds spent not only for counseling but for 228 continuing education courses, numerous research projects, a minority program, and an export increase program.

[c]Funds supplied by state ($560,000) less charge for overhead from federal funds ($117,000).

The third emphasis is the promotion of small business and its management in college curricula. Until recently, business schools have focused almost entirely on big business. Nevertheless, some positive change has become noticeable in programs in Georgia and the nation.

SPECIAL PROGRAMS

One special program in the Georgia SBDC is worthy of mention. The Minority Business Development Center's activities have resulted in 26 percent of SBDC counseling for minority-owned firms, although these constitute only 7 percent of all Georgia businesses. Its highly successful program for minority high school students, which brings selected minority students to the university for four days of orientation to business, received a Freedoms Foundation Award in 1980. The unit has also been instrumental in the formation of the Georgia Association of Minority Entrepreneurs, and has organized a series of lectures concerning the role of business in solving society's problems. The first lecture in the series, developed in cooperation with the Martin Luther King, Jr. Center for Nonviolent Social Change, was given by Maryland congressman Parren Mitchell, chairman of the House Small Business Committee.

Two other special programs dealing with international trade development and tourism round out the SBDC's growing organization. Again, these programs augment the center's assistance to firms across the state which are involved in export expansion and in all facets of tourist services. So while the Georgia SBDC is still in its infancy, its impact appears to be solid and its future for service promising.

William C. Flewellen, Jr. is University Professor of business and industrial development with the Small Business Development Center at The University of Georgia.

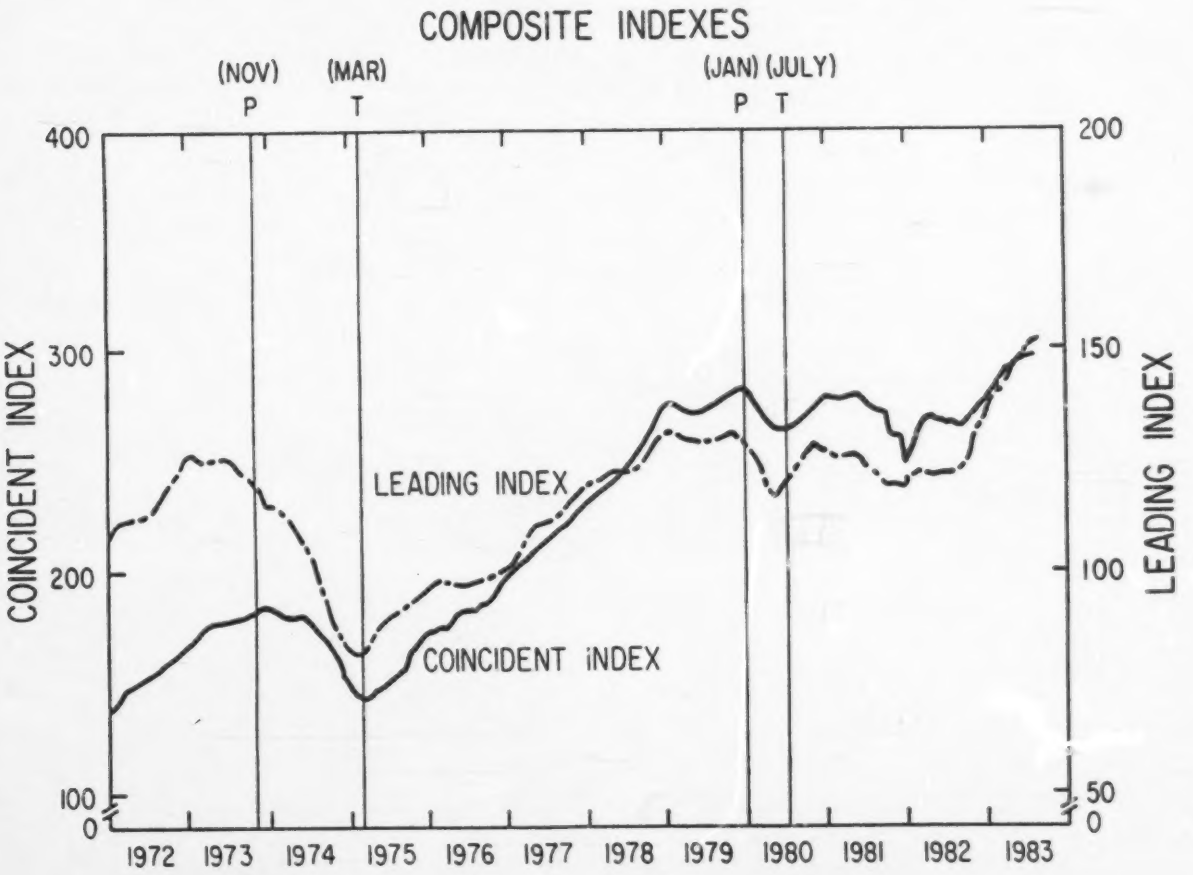
Composite Indexes of Leading and Coincident Georgia Economic Indicators

Economic activity in Georgia continued to grow in June as the coincident index gained 2.2 percent over May. Seasonally adjusted real retail sales were up 2.3 percent, and real manufacturing weekly earnings rose 2.4 percent. Nonagricultural employment rose slightly (0.4 percent) over the previous month.

The index of leading indicators showed substantial growth, however, advancing 2 percent in its eleventh consecutive month-over-month increase. Help Wanted Advertisements, Atlanta, rose sharply, increasing by 10.1 percent over May. Initial unemployment claims were up by 4.8 percent, while new housing permits authorized increased by a slight 0.1 percent.

The July indicators showed that the recovery was still on track, although activity was more modest. The coincident index was essentially flat, posting an advance of only 0.2 percent. After adjustment for inflation, retail sales and average weekly earnings in manufacturing declined by 0.9 and 2.7 percent, respectively. Nonagricultural employment rose 0.3 percent.

The index of leading indicators reflected the overall strength of the state's economy by rising 2.5 percent in July. The increase was supported by a healthy 16.6 percent drop in initial unemployment claims and a 9.2 percent rise in Help Wanted Advertisements in Atlanta. On the darker side, however, seasonally adjusted new housing permits slid 10.6 percent.



Note: P (peak) indicates the end of general business expansion at the national level and the beginning of recession; T (trough) indicates the end of general business recession at the national level and the beginning of expansion.

GEORGIA BUSINESS STATISTICS

SERIES	JULY 1983	JUNE 1983	MAY 1983	JULY 1982
Georgia Leading Indicators Index[1] (1969=100)	153.96	150.14	147.97	121.86
Georgia Coincident Indicators Index[1] (1969=100)	299.66	299.05	294.36	268.53
Nonagricultural Employment[2] (thousands)	2236.2	2254.0	2238.6	2206.1
Manufacturing Employment[2] (thousands)	501.5	503.4	499.6	499.5
Weekly Earnings, Manufacturing[2] (dollars)	285.36	294.94	285.19	262.00
Help Wanted Advertising, Atlanta Index[3] (1967=100)	202	185	168	138
Taxable Retail Sales[4] ($ millions)	2482.4	2616.3	2555.7	2226.5
Building Permits[5]				
Residential Housing Units, Private (thousands)	5.7	6.4	6.9	2.8
Value of Residential Housing ($ thousands)	209116	233078	243798	105639
Value of Non-residential Construction ($ thousands)				
Industrial Buildings	18215	13931	17573	7316
Office, Bank and Other Professional Buildings	58320	51547	18167	9336
Stores and Other Merchantile Buildings	9990	22423	16532	3974
Other	60117	46772	40245	84320
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December, 1977 = 100)	-	161.5	-	157.3[a]
South/Population more than 1,250,000	-	161.2	-	156.3[a]
South/Population 385,000 to 1,250,000	-	161.7	-	158.4[a]
South/Population 75,000 to 385,000	-	161.2	-	157.6[a]
South/Population 2,500 to 75,000	-	162.0	-	156.5[a]
Atlanta (1967=100)	-	302.3	-	291.1[a]
Prices Received by Farmers, Georgia Index[7] (1977=100)	127	126	126	124
	1983:I	1982:IV	1982:III	1982:I
Total Personal Income[8] ($ millions)	55999	55259	54041	51990

---

[1] Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2] Labor Information Systems, Georgia Department of Labor

[3] Series published by The Conference Board, Inc.

[4] Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue

[5] U.S. Department of Commerce, Bureau of the Census

[6] U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office

[7] Georgia Department of Agriculture, Georgia Crop Reporting Service

[8] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

[a] June, 1982

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Biotechnology: The High Technology in Georgia's Future

Nathan W. Dean

High technology is the sputnik of the 1980s. Once again we are in danger of losing our technological leadership, though the threat is more economic than military. It is equally urgent to respond to it by re-mobilizing American science and education. Georgia has a key role to play in meeting that threat, and the more successfully it contributes to this national effort, the more successfully it will reap the benefits.

First of all, what is high technology? The best definition was given by the Organization for Economic Cooperation and Development in a major, multinational study of the development of advanced industrial societies. According to the report, "Four technological adventures are currently underway: in electronics (microprocessing and automation); in biology, with an array of effects on health, agriculture, and industry; in energy production, with the development of alternative major sources of primary energy; and in the uses of oceans and space."

Competition for control of these new industries will be intense, both nationally and internationally. This has already happened in microelectronics. The Japanese are becoming dominant in many parts of this field, and the pressure of international competition has led to redoubling of American efforts. However, the United States still leads the world in microprocessor technology and in many of the applications of microelectronics. These have been growth fields, and they are still growing. It is certainly not too late for Georgia to enter these growth fields and try to compete with California's Silicon Valley, Route 128 in Massachusetts, and North Carolina's Research Triangle for a share of that growth. But keep in mind the other three industries in that OECD report: biology, alternative energy, and oceans and space. These are the high technology growth industries of the next decade, and Georgia's productive capabilities in biomass and food and fiber can help it play a dominant role.

GEORGIA'S CONTRIBUTIONS

Since biotechnology is not yet an active form of high technology in Georgia, a brief description may be useful here. In its original form, it was somewhat inaccurately called genetic engineering. Scientists had learned to take genes apart with enzymes and put them back together again, making it possible to alter the genes' original instructions. For instance, a tiny bit of genetic material called a plasmid could be transferred from one particular cell to a bacterium, and the injected plasmid would thereafter control the bacterium's actions. So if a plasmid from an insulin-producing pancreatic cell was transferred to a harmless bacterium, that bacterium would begin to produce insulin also. In this manner, a California biotechnology firm began to produce insulin from pancreatic plasmid-innoculated bacteria. The potential for similar accomplishments is limitless.

Not surprisingly, one of the nation's leading university research groups in this field is located at The University of Georgia. It includes Norman Giles, Calloway professor of genetics; Jean LeGall, probably the world's leading expert on the biochemistry of fermentation processes; Joseph Key, an international authority on how plants withstand stress; and Rich Meagher, identified by *U.S. News and World Report* as one of the country's seven superachievers. The latter two are currently working in the hottest area of the biotech revolution—the use of gene transfer techniques in plant cells. Imagine the effect on agriculture

High Technology and Georgia

How does Georgia rank now in high technology employment, and what are the state's prospects for more growth? A recent study by the Federal Reserve Bank of Atlanta* finds that, with high technology manufacturing employment standing at an annual average of 38,379 during the first three quarters of 1982, Georgia ranked fifth in the eight-state Southeastern region. However, it had the most rapid rate of increase (62 percent between 1977-1982) among those states, almost three times the southeastern and U.S. averages. At 10,307, high technology service employment had increased 147 percent over the same period, placing Georgia second only to Florida in attracting both types of high tech industry.

The Atlanta Fed's economists show that, given the factors established by a congressional study as most affecting the choice of location of high tech firms, development across the Southeast and within states will be uneven; not all the communities seeking high tech industries will be able to attract them. The economists believe new industries will tend to coalesce in areas that already have a large, highly trained technical labor force (the single most important factor in site selection), and a critical mass of existing high technology enterprises.

Within Georgia, the study singles out the Atlanta area as possessing both attributes. Bulwarked by the advantages of the South as a whole—low labor costs, a favorable tax climate, and relatively low costs of living and energy—the Atlanta area also ranks high in characteristics in which the region is not highly rated: it offers a high quality of life, an excellent transportation system, good access to markets, and advanced educational institutions recognized as sources of highly skilled labor and innovative ideas. Therefore, the authors believe that critical mass already exists in the Atlanta area.

To build a larger base of permanent high technology industry, Georgia and other southeastern states must be able to attract research and development operations as well as manufacturing operations. According to the Fed study, R and D operations consider the supply of technicians more critical than the availability of engineers and scientists, who can be imported from outside the region or attracted from other high tech firms. Educational facilities at all levels are important: relocating employees want excellent primary and secondary education for their children, and the educational system must produce a labor force capable of meeting the demands of high tech employment. As a whole, the South is perceived as lagging behind the rest of the nation educationally, despite recent efforts to strengthen both preparatory and vocational education in many states.

In addition to attracting high technology firms from other regions, the study suggests that Georgia and other southeastern states may home grow them. Several factors are important to the success of new high tech firms. Firms that have done well enough to turn to public financing have an informal, flexible, quality-oriented management style that closely links production and overall management, and have identified and exploited a market niche by using strategies of price leadership, brand recognition, or automation. Venture capital is critical for new firms and remains limited in the South; Atlanta's Georgia Institute of Technology is one organization that helps fledgling high tech entrepreneurs locate sources of capital. Overall, the study finds, locally started industry is likely to be as important to high technology growth in the Southeast as is the attracting of outside firms.

Although "high technology is not a cure-all for the Southeastern economy," the study emphasizes, and although the substantial benefits of such industries are likely to occur mostly in areas that have established an underlying framework for such activity, longer range benefits include more than new jobs. Business, government, and educational institutions already are cooperating more closely, and the management approaches that foster success in high tech firms are likely to spread to more traditional industries, contributing "a pattern for others to follow as the Southeast's economic environment continues to change."

—*S.L.*

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*Donald L. Koch, William N. Cox, Delores W. Sternhauser and Pamela V. Whigham, "High Technology: The Southeast Reaches Out for Growth Industry," *Economic Review* (Federal Reserve Bank of Atlanta), September 1983, pp. 4-19.

if Key can identify the protein which makes a plant tolerate heat, drought, or salt water and if that property can be genetically induced in crops. Or suppose super trees can be identified in the pine forests in south Georgia, and cloned to produce super forests of genetically superior, rapid growing, high yielding trees. This is a current research project in the School of Forest Resources.

We are also looking at other ways of making bacteria work for us. William Finnerty, head of the microbiology department, has developed bacterial systems which are extremely effective in removing sulfur and nitrogen from crude oils. He also has a strain which can reduce the viscosity of heavy crude oils by more than 95 percent, an especially important breakthrough since some major potential sources of petroleum, such as tar sands, are simply too thick to flow through a pipeline.

One of the oldest and best ways in which microbes are used is in fermentation. But fermentation produces heat, and too much heat can kill the yeast. Consequently, it is necessary to cool the mash, and the energy required to do this can run up to 30 percent of the cost of fermentation. Now this problem has been solved by UGA biochemist Lars Ljungdal and microbiologist Jurgen Wiegel who have identified and cultured a strain of bacterium that likes heat and does not need oxygen. If this microbe is used instead of yeast, fermentation can proceed almost at the boiling point of alcohol. This is a great breakthrough, for it reduces the cost significantly. In addition, this University patented bacterium can take corn, peanut shells, yams, wood chips or any basic cellulose and convert it to alcohol.

CONCLUSION

Biotechnology, then, is the current frontier of high technology. Just as Henry Ford revolutionized the early twentieth century with the automobile and mass production techniques; and just as radio and television and satellite links changed the mid-twentieth century; and microelectronics and computers have revolutionized recent decades, biotechnology will be the revolution of this century's end.

This revolution may be far more important than any of the previous ones. By the year 2000, there will be 2 billion more people on earth. Nothing is more dangerous than the pressures of unlimited population on limited resources, the most crucial of which are food and fuel. None of the previous technological revolutions have been able to affect these vital commodities; none have been able to delay significantly the oncoming collision between overdemand and undersupply. The biotechnology revolution can do that, and Georgia can lead it. With the largest land area east of the Mississippi, with a long growing season and an unsurpassed water supply, Georgia is ideally placed to produce biomass—food, fiber, and fuel—for the nation and the world. With the strengths in biotechnology and with the research projects such as those described, we can produce revolutionary improvements in the quantity and quality of this biomass bonanza.

Nathan W. Dean is assistant vice president for research and professor of physics at the University.

Unemployment Patterns in Georgia: 1975, 1979 and 1982

Part I

Suzanne A. Lindsay

The recent official definition of a July 1981 to November 1982 recession by the National Bureau of Economic Research confirms that, between 1970 and 1983, the United States has experienced four national economic recessions. Moreover, the fact that Georgia's economy closely corresponds with national economic activity is illustrated by the movements of the Composite Indexes of Leading and Coincident Georgia Economic Indicators, two measures of change recently developed by the Georgia Economic Forecasting Project at the University. Further evidence of shifts in economic activity comes from an examination of patterns of unemployment in Georgia during recent years, which is the focus of this two-part article. Part I discusses urban/rural population concentrations and labor force sizes characteristic of counties with very high and moderate unemployment rates. Part II will examine employment, earnings, and income patterns of these counties in detail.

When county annual average unemployment rates for contrasting periods of economic activity are examined, using the major peaks and troughs shown by the Composite Indexes of Leading and Coincident Georgia Economic Indicators as a guide, clear regional patterns of rates appear (see Maps 1-3). This study considers the rates for 1975, 1979, and 1982 issued for each county by the Georgia Department of Labor and defined as the annual average rate of unemployment of the civilian labor force for the county, by place of residence.

In 1975 national economic activity dropped to a trough associated with the impact of the OPEC oil embargo, and troughs were echoed in both Georgia Economic Indicator indexes. As measured by the indexes, a peak in state economic activity occurred in December 1979; both state and national economic activity are currently climbing from the troughs experienced in 1982. Since unemployment reflects overall levels of economic activity, patterns of county unemployment rates for these three years offer detailed pictures of the state in recession, prosperity, and recession repeated.

1975: A RECESSION YEAR

To judge the impact of unemployment on Georgia's counties, annual average unemployment rates were classified in four categories; low (3 to 4.9 percent), moderate (5 to 6.9 percent), high (7 to 9.9 percent) and very high (10 percent or above). Map 1 shows the pattern of rates for 1975, a recession year. Individual county rates ranged from 3.9 percent to 22.5 percent, but only a few counties in the southern third of the state maintained low annual average rates. Areas of moderate unemployment included the northwestern corner of the state (in counties heavily influenced by the Chattanooga area); around the Athens SMSA and the outer fringes of the Atlanta SMSA; in a semicircular band curving from the eastern border down to south central Georgia and up to Washington County in the southwestern corner; and along the Florida border. High (7 to 9.9 percent) unemployment prevailed in most SMSA central county areas, along the central western border with Alabama, through central Georgia, and in many of the state's southern counties.

The pattern of very high (10 percent or above) un-

Table 1
Distribution of County Unemployment Rates by Year and Interval

Rate Interval (%)	1975		1979		1982	
	# of Counties	% of Total	# of Counties	% of Total	# of Counties	% of Total
Low (3.0-4.9)	11	6.9	74	46.5	0	0
Moderate (5.0-6.9)	42	26.4	76	47.8	34	21.4
High (7.0-9.9)	62	39.0	8	5.0	78	49.1
Very High (10.0 +)	44	27.7	1	0.6	47	29.6

Source: Based on annual average unemployment rates as a percentage of the civilian labor force, by place of residence, as prepared by the Georgia Department of Labor. Subtotals may not add to 100% because of rounding.

employment is particularly interesting. Most of the highland area north of Atlanta suffered such rates; many of the Atlanta SMSA counties outside the central counties were severely affected. Another cluster of counties with very high unemployment rates appears below Augusta, and a third radiates from the Columbus area. Additional patches of high unemployment appear in south central Georgia below Macon and along the Georgia coast. Table 1 and Figure 1 show the overall distribution of county unemployment rates for 1975. In a year in which the annual average unemployment rate for the state was 8.6 percent, only 6 percent of the counties had low unemployment rates, 26.4 percent had moderate rates, 39 percent had high rates, and 27.7 percent had very high rates, strong indication that the national oil recession had a Georgia counterpart.

1979: A PEAK YEAR

By 1979, in contrast, the annual average unemployment rate for the state as a whole had dropped to 5.1 percent; county rates ranged from 3.1 percent to 17.5 percent. About 46 percent of the counties had unemployment rates in the low range (3 to 4.9 percent); another 47.8 percent had moderate (5 to 6.9 percent) rates. Five percent had high (7 to 9.9 percent) rates, and only one county had an unemployment rate over 10 percent. Except for isolated counties near the northeastern border with South Carolina, in the southwest corner below Columbus, and one county in the south central area of the state, Map 2 shows a patchwork of low and moderate rates—the picture of relative prosperity, compared to 1975. In contrast to that year, when unemployment rates in SMSAs were relatively high, most SMSA counties and those adjacent to them had low unemployment rates. In the Atlanta area, however, Fulton County had an unemployment rate well above most of its metropolitan neighbors. The distribution of rates shown in Figure 2 indicates the high concentration of counties with low unemployment rates.

1982: RECESSION RECURRENT

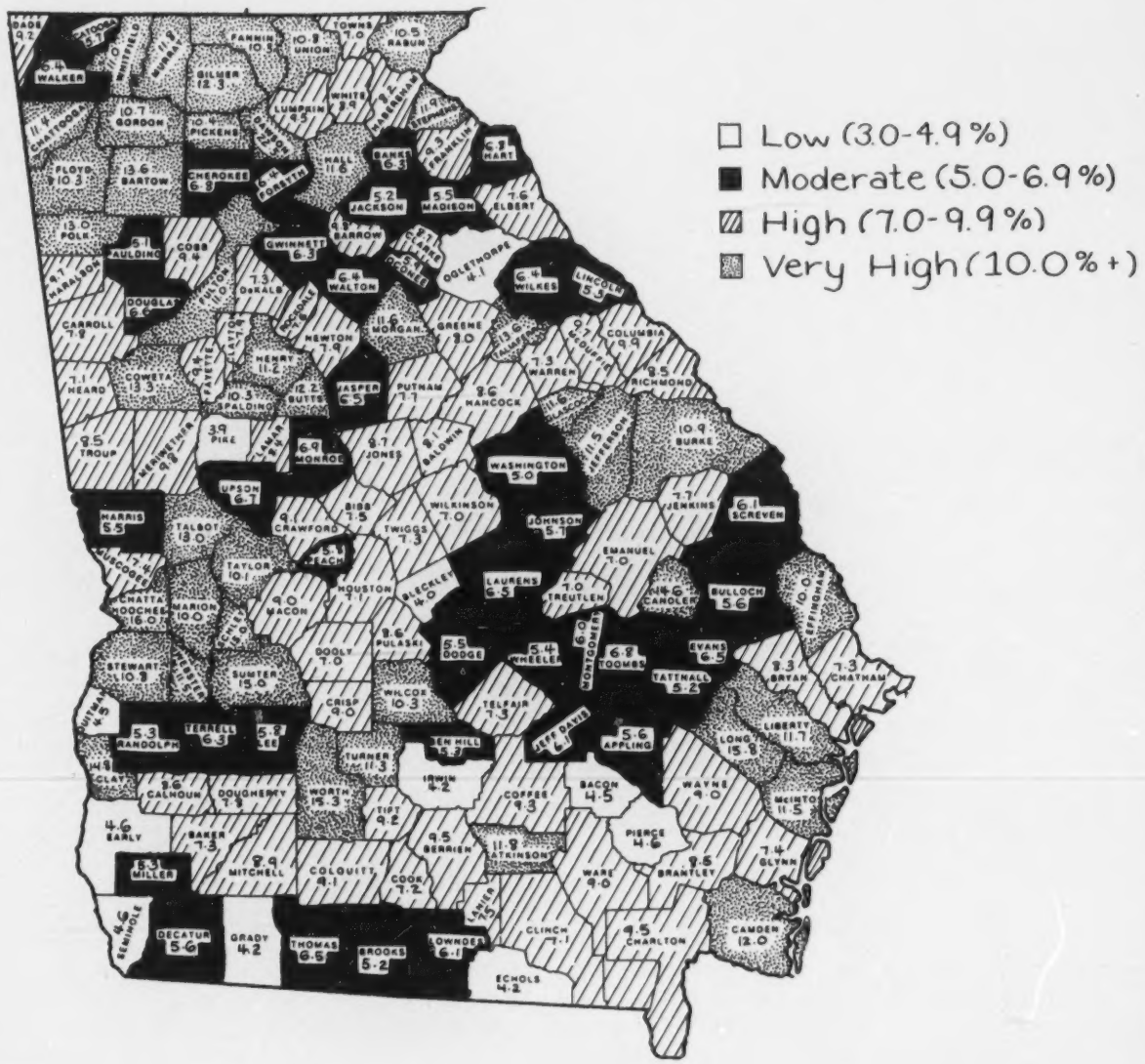
The national economic recession that began in July 1981 extended to November 1982; therefore, annual average unemployment rates in Georgia for 1982 were consistent with a severe drop in economic activity for the state. The statewide rate rose to 7.8 percent, with county rates ranging from 5.2 percent to 18.5 percent, and the distribution of county rates changed greatly from that of 1979 (see Table 1 and Figure 3). No counties had a low unemployment rate; 21.4 percent had moderate rates, 49.1 percent had high rates, and 29.6 percent (47 counties) had very high rates of 10 percent or above.

Map 3 illustrates county unemployment rates in 1982; the overall picture shows an impact more severe than that of 1975, when isolated counties had low rates even in the midst of generally high levels of unemployment. The patterns within the state differ considerably from those of 1975. In 1982, the counties containing and surrounding metropolitan areas were relatively well-off; their unemployment rates, although considerably higher than in 1979, remained below 10 percent. (Again, in the Atlanta area, Fulton County's rate was higher than most of the other SMSA counties.) A band of central counties extending from Burke and Screven to Jeff Davis and Appling also fared relatively well, as did most of the counties along the Florida border.

The concentrations of very high unemployment visible in the map of 1975 rates reappeared, but in 1982 the areas were much larger. Counties with unemployment rates of 10 percent or more were concentrated in a belt across the highland region; a cluster beginning at the northeastern border of the state and swinging around

Map 1

1975 Georgia County Unemployment Rates*

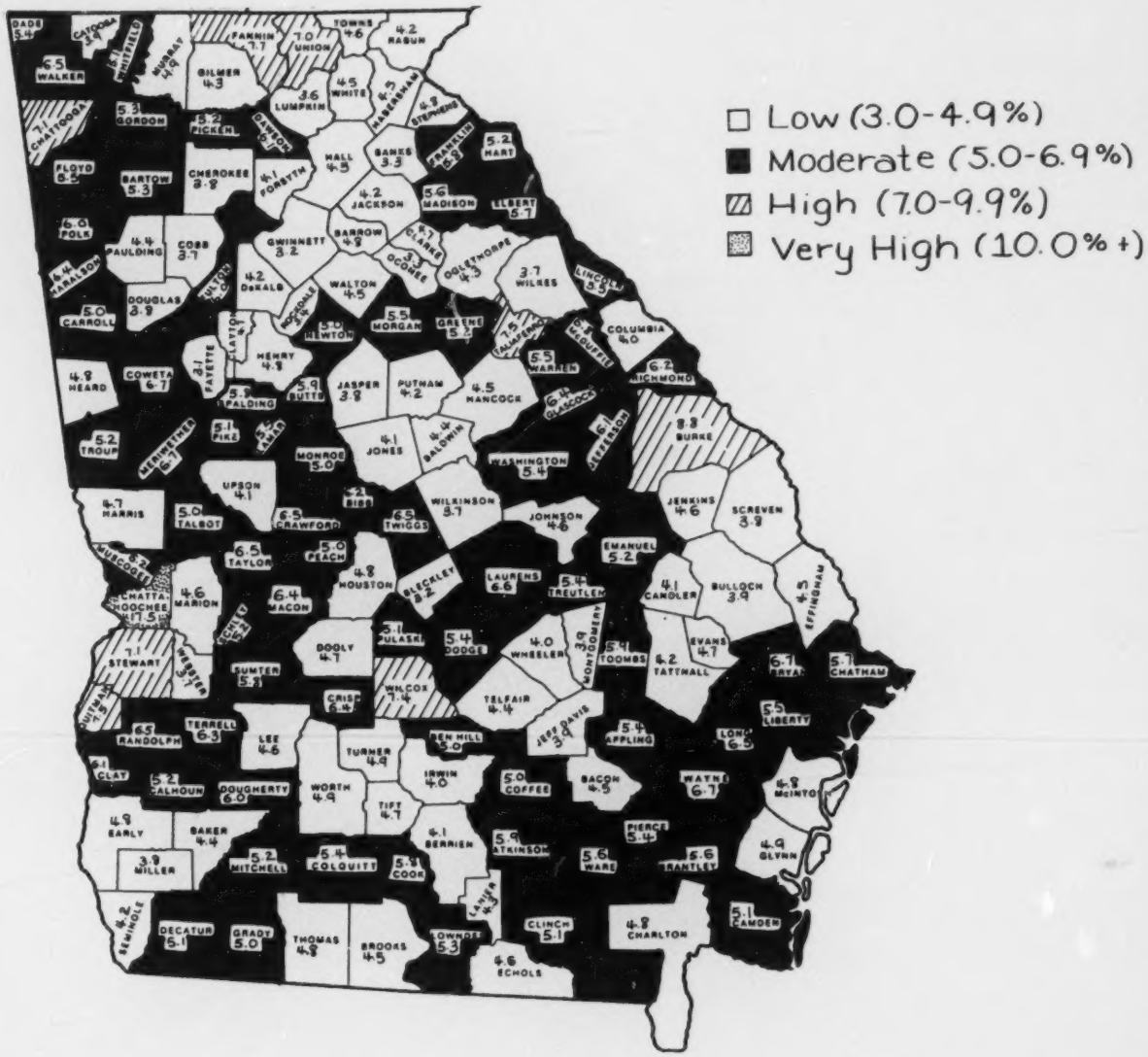


*Annual average unemployment rate = percentage of civilian labor force unemployed, by place of residence.

Source: Georgia Department of Labor

Map 2

1979 Georgia County Unemployment Rates*

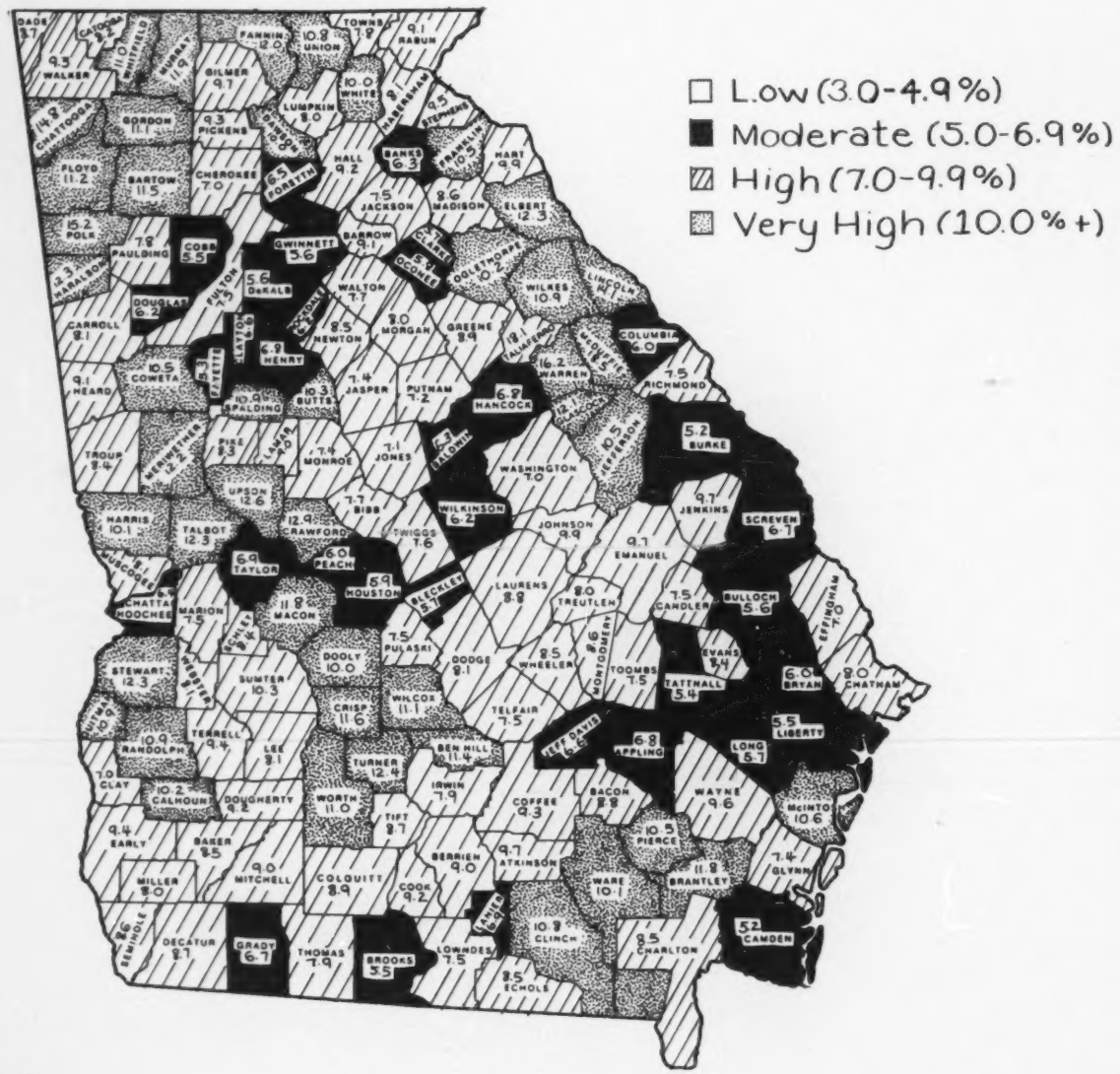


*Annual average unemployment rate = percentage of civilian labor force unemployed, by place of residence.

Source: Georgia Department of Labor

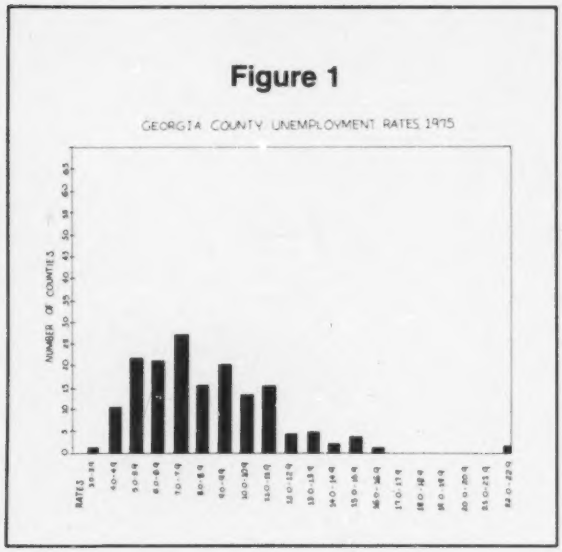
Map 3

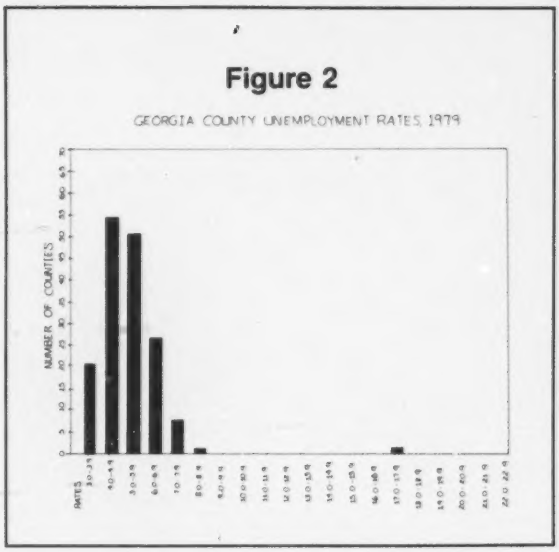
1982 Georgia County Unemployment Rates*



*Annual average unemployment rate = percentage of civilian labor force unemployed, by place of residence.

Source: Georgia Department of Labor





Augusta; another cluster beginning south of Atlanta and extending almost to Macon; a group in the south central area below Macon-Warner Robins; a smaller cluster in the southwest below Columbus; and a final cluster in the southeastern corner (including one coastal county).

COUNTIES WITH VERY HIGH UNEMPLOYMENT RATES, 1982

Given the distribution of the 47 counties with very high annual average unemployment rates in 1982, what can be concluded about the characteristics of the areas and individual counties? How did these counties differ from those suffering less severe unemployment? The following discussion of the population totals, urban/rural concentrations, and labor force sizes characteristic of each group provides some insight.

For convenience, counties with very high unemployment rates will be referred to as VHURCs in this summary; counties with lower unemployment rates, a group of 25 chosen to contrast with the VHURCs in each region, will be referred to as LURCs. Together, the groups totalled 72 and represented 45 percent of Georgia's counties.

Counties with very high unemployment rates in 1982 included: **North Georgia—Highlands**: Bartow, Chattooga, Dawson, Fannin, Floyd, Franklin, Gordon, Haralson, Murray, Polk, Union, White, and Whitfield. **North Georgia—East**: Elbert, Glascock, Jefferson, Lincoln, McDuffie, Oglethorpe, Taliaferro, Warren, and Wilkes. **Middle Georgia—West**: Butts, Coweta, Crawford, Harris, Meriwether, Spalding, Talbot, and Upson. **South Georgia—West**: Calhoun, Quitman, Randolph, and Stewart. **South Georgia—Central**: Ben Hill, Crisp, Dooly, Macon, Sumter, Turner, Wilcox, and Worth. **South Georgia—East**: Brantley, Clinch, McIntosh, Pierce, and Ware.

The sample of low unemployment rate counties included: **North Georgia—Highlands**: Catoosa, Lumpkin, and Towns. **North Georgia—East**: Banks, Clarke, Columbia, Oconee, and Richmond. **Middle Georgia—West**: Cobb, DeKalb, Douglas, Fayette, Fulton, and Gwinnett. **South Georgia—West**: Chattahoochee and Webster. **South Georgia—Central**: Bleckley, Brooks, Grady, Houston, and Peach. **South Georgia—East**: Camden, Lanier, Liberty, and Tattnall.

POPULATION AND LABOR FORCE

As a group, the 47 VHURCs in 1982 were much smaller and more rural than the sample of LURCs (see Table 2). Over half of the VHURCs were in the lower half of state counties by population rank (1980 census), while only 15 percent were among the top 25 percent of counties by size. Eleven percent of the counties lost population between 1970 and 1980; 43 percent grew at rates between 1 to 10 percent; 26 percent grew at rates between 11 to 24 percent; and 69 percent, overall, grew less than 25 percent. Only Murray County grew by more than 50 percent over the decade (see Table 3). In contrast, the selected LURCs included three counties with population losses, 50 percent with gains from 1 to 24 percent, and 28 percent with population increases of 50 percent or more.

Figure 3

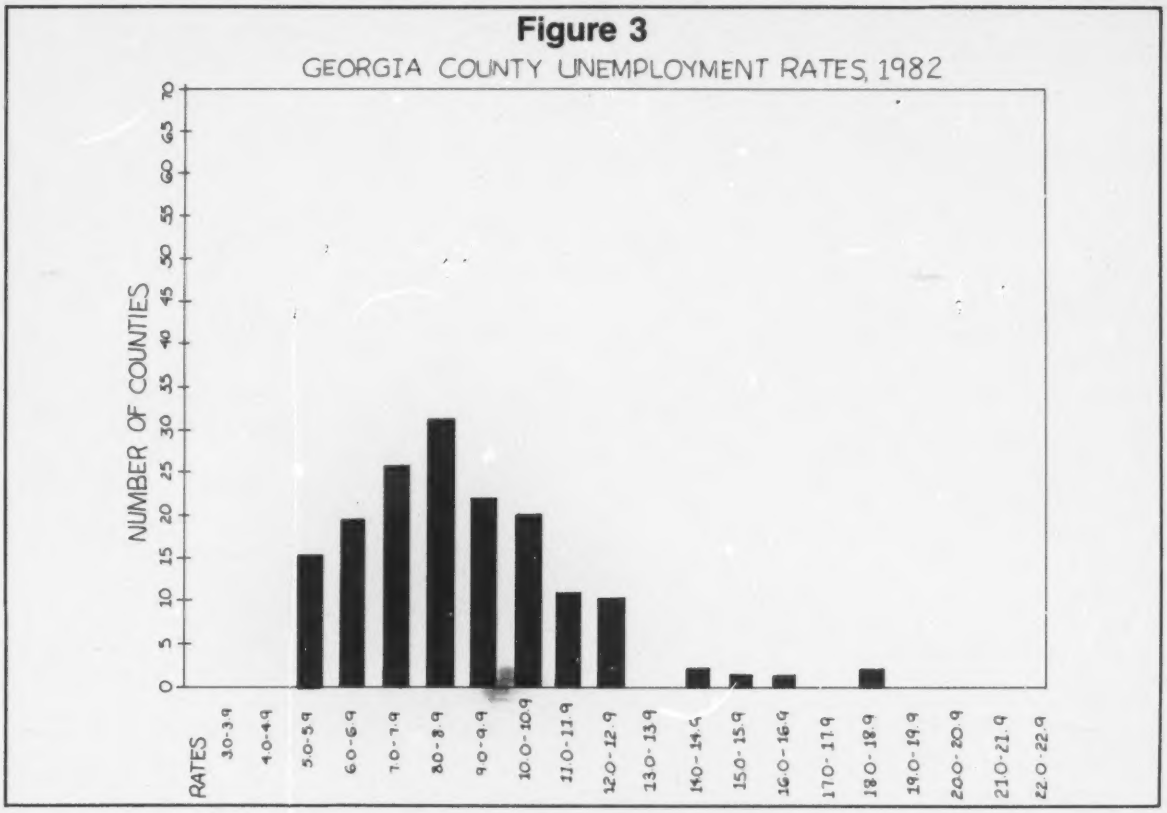


Table 2
Number and Percent of Counties in Quartiles of County Population Rank, 1980 Census

Population Rank	VHUR Counties, 1982 #(N=47)	%	LUR Counties, 1982 #(N=25)	%
Quartile 1 (largest)	7	15	11	44
Quartile 2	14	30	5	20
Quartile 3	11	23	5	20
Quartile 4 (smallest)	15	32	4	16

Source: Based on population estimates from the U.S. Department of Commerce, Bureau of the Census, *1980 Census of Population and Housing*, Characteristics of the Population: Number of Inhabitants, Georgia (PC80-1-A12 Ga.)

Table 3
Percent of Population Growth, Selected Counties, 1970-1980

% of Population Change, 1970-80	VHUR Counties, 1982 #(N=47)	%	LUR Counties, 1982 #(n=25)	%
Population loss	5	11	3	12
Positive growth	42	89	22	88
1-10	20	43	2	8
11-24	12	26	11	44
25-49	9	19	2	8
50-74	1	2	2	8
75-99	0	0	2	8
100-+	0	0	3	12

Source: U.S. Department of Commerce, Bureau of the Census, *1980 Census of Population and Housing*, Characteristics of the Population: Number of Inhabitants, Georgia (PC80-1-A12 Ga.)

Table 4
Percentage of Urban Residents in Selected Counties, 1980

% of Urban Population	VHUR Counties, 1982 #(N=47)	%	HUR Counties, 1982 #(N=25)	%
0 (100% rural)	18	38	3	12
1-24	7	15	1	4
25-49	15	32	10	40
50 or more	7	15	11	44

Source: U.S. Department of Commerce, Bureau of the Census, *1980 Census of Population and Housing*, Characteristics of the Population: Number of Inhabitants, Georgia (PC80-1-A12 Ga.)

Table 4 shows that 38 percent of the VHURCs had no residents in urban or urbanized areas, and thus were entirely rural. Of these counties, 53 percent had urban populations of less than 25 percent. Only 12 percent of the sample LURCs were entirely rural; 16 percent had less than one-quarter of their populations living in urban areas, and 44 percent had urban populations of 50 percent or more.

VHURCs generally had relatively small civilian labor forces (annual averages ranging from 659 to 39,138 in 1982), as implied by their population sizes. Labor forces of less than 5,000 were the case in 43 percent of the VHURCs, while 77 percent had labor forces of less than 10,000. The LURC group, which includes metropolitan counties in the Atlanta, Athens, Macon, and Augusta SMSAs, had much larger labor forces on the average, although 28 percent had less than 5,000 and 56 percent had less than 10,000 workers (see Table 5).

Table 5
Civilian Labor Force Sizes for Selected Counties, 1982

Civilian Labor Force (persons)	VHUR Counties #(N=47)	%	LUR Counties #(N=25)	%
500- 2499	6	13	2	8
2500- 4999	14	30	5	20
5000- 7499	7	15	4	16
7500- 9999	9	19	3	12
10000-19999	8	17	4	16
20000-29999	1	2	1	4
30000-39999	2	4	2	8
40000 or above	0	0	5	20

Source: Based on annual average civilian labor force estimates by county, prepared by the Georgia Department of Labor.

OTHER MEASURES OF DIFFERENCE

The demographic characteristics of labor force size, population size, and degree of urbanization provide the background for exploring economic differences between very high unemployment rate and low unemployment counties. In the next issue, Part II of this article will examine patterns of employment and earnings, as well as more general information on personal income and overall economic rankings. However, the evidence presented here clearly indicates that patterns of unemployment rates help to show the effects of prosperity and recession on Georgia's counties.

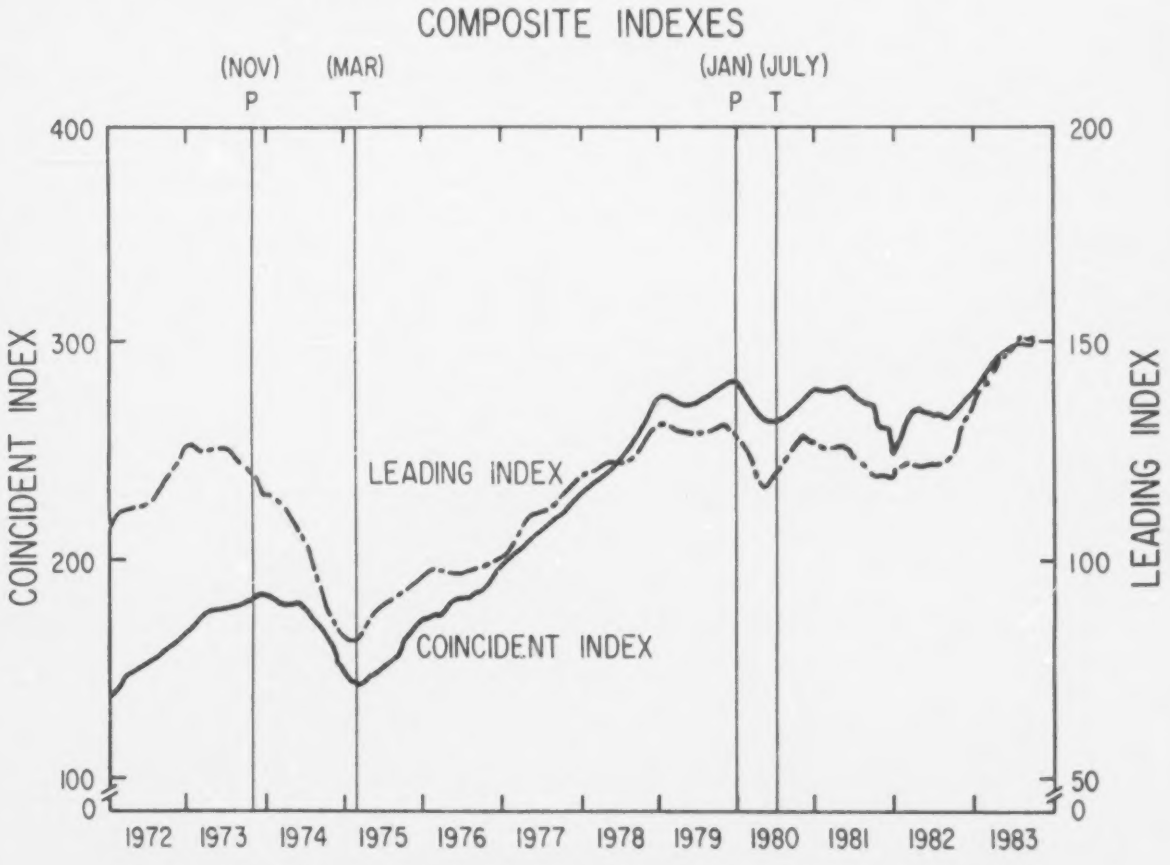
Composite Indexes of Leading and Coincident Georgia Economic Indicators

The August indicators confirm earlier statements that while the state's overall economy continues to maintain strength, the pace of economic activity has slowed from previous months. Neither of the indices exhibited significant movement during the month. The coincident index rose 2.2 percent over July's figure, with real taxable sales and nonagricultural employment advancing 0.9 and 0.2 percent, respectively. Real average weekly earnings in manufacturing slid by 0.5 percent on a seasonally adjusted basis.

Month-over-month, the leading index fell by 0.9 percent, as all three indicators included in this index performed poorly. After seasonal adjustment, initial unemployment claims rose by 30.7 percent; however, there is some reason to believe that this may be partially attributable to the method of seasonal adjustment rather than to a fundamental change in the direction of real economic activity. Help Wanted Advertisements, Atlanta, dropped 7.9 percent during the month, while new housing permits were off by 1.7 percent.

The September figures reflected the fundamental strength inherent in economic activity in the state. The coincident index advanced 0.9 percent, as all three of its component series posted modest gains. Real retail sales rose 1.6 percent; and average weekly earnings in manufacturing, and nonagricultural employment increased 1.3 and 0.6 percent, respectively.

The behavior of the leading index was flat during September. Underlying this seemingly lackluster performance, future strength in employment was indicated by an 18.1 percent drop in initial employment claims and a 1.6 percent advance in help wanted advertisements in Atlanta. The only negative news concerned housing permits, which slid by 14 percent for the month.



Note: P (peak) indicates the end of general business expansion at the national level and the beginning of recession; T (trough) indicates the end of general business recession at the national level and the beginning of expansion.

GEORGIA BUSINESS STATISTICS

SERIES	SEPT 1983	AUG 1983	JULY 1983	SEPT 1982
Georgia Leading Indicators Index[1] (1969=100)	150.51	150.45	150.58	122.27
Georgia Coincident Indicators Index[1] (1969=100)	301.31	298.68	299.38	269.62
Nonagricultural Employment[2] (thousands)	2267.3	2236.7	2236.7	2207.7
Manufacturing Employment[2] (thousands)	513.1	505.8	501.0	501.9
Weekly Earnings, Manufacturing[2] (dollars)	295.36	287.16	286.82	266.74
Help Wanted Advertising, Atlanta Index[3] (1967=100)	189	186	202	120
Taxable Retail Sales[4] ($ millions)	2686.5	2494.5	2482.4	2442.1
Building Permits[5]				
Residential Housing Units, Private (thousands)	5.4	6.0	5.7	3.6
Value of Residential Housing ($ thousands)	200360	227291	209116	129587
Value of Non-residential Construction ($ thousands)				
Industrial Buildings	17551	29705	18215	7821
Office, Bank and Other Professional Buildings	40846	31470	58320	9927
Stores and Other Merchantile Buildings	14952	14252	9990	6485
Other	43059	48904	60117	45678
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December, 1977 = 100)	-	162.6	-	158.3[a]
South/Population more than 1,250,000	-	162.4	-	156.9[a]
South/Population 385,000 to 1,250,000	-	162.9	-	159.1[a]
South/Population 75,000 to 385,000	-	162.3	-	158.6[a]
South/Population 2,500 to 75,000	-	162.8	-	158.8[a]
Atlanta (1967=100)	-	303.9	-	295.6[a]
Prices Received by Farmers, Georgia Index[7] (1977=100)				
	1983:II	1983:I	1982:IV	1982:II
Total Personal Income[8] ($ millions)	58,169	56,546	55,798	53,506

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[1] Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2] Labor Information Systems, Georgia Department of Labor

[3] Series published by The Conference Board, Inc.

[4] Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue

[5] U.S. Department of Commerce, Bureau of the Census

[6] U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office

[7] Georgia Department of Agriculture, Georgia Crop Reporting Service

[8] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

[a] August, 1982

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Economic Outlook for Support for the Arts in the U.S. and Georgia

Phillip A. Cartwright and Richard S. Schneiderman

In large part, support for the arts in the United States is derived from individual contributions at the local level, and thus, there is no single dominating source of support. In this respect, funding of the arts in the United States differs markedly from that in other countries where it is often the case that a very high percentage of total support is provided by the government through a central agency.

Proponents of increased funding for the arts argue support is important for several reasons. Taking the broadest point of view, support of the arts tends to encourage excellence. Funding of cultural institutions represents a commitment to maintaining a diverse cultural heritage and to education. Contributions provide resources for the innovation, development and conservation of art, and for the creation and implementation of exhibitions which make these works available for viewing by a broad cross-section of our society. Furthermore, there is convincing evidence to back the hypothesis that support of the arts contributes to economic growth and development, not only over the intermediate to long term through the enhancement of the quality of education, but over a shorter time horizon through the creation of jobs and the enhancement of the overall pace of business activity across sectors of the economy.

This article describes and analyzes the sources of support for the arts at the national level and in Georgia over the past several years. Though the primary focus is on the supply of funding, this is not to suggest that demand considerations are of no importance; however, issues pertaining to the demand for artists, works of art, and art institutions are difficult to resolve and are considered to be outside the scope of this article.

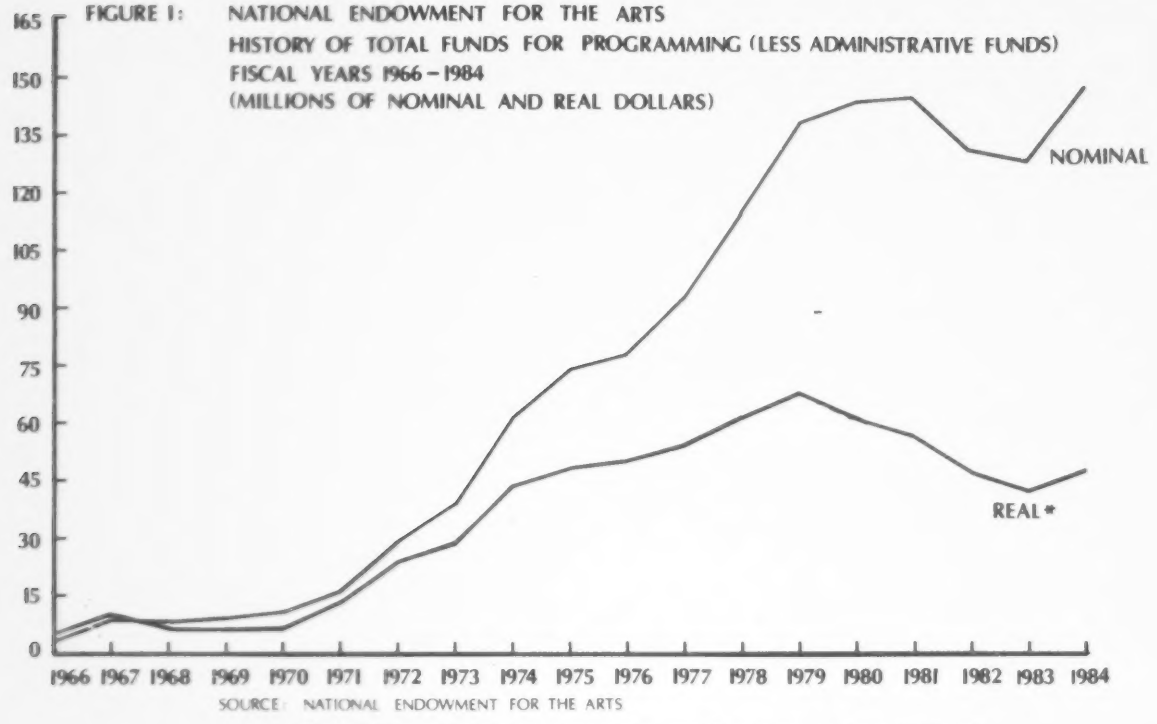
SUPPORT FOR THE ARTS IN THE UNITED STATES

The arts may be categorized into the areas of dance, design arts such as architecture, expansion arts, or those deeply rooted in and reflective of the culture of a minority or specific cultural community, folk arts, literature, media arts, music, opera, musical theater, theater, the visual arts, and the art forms that cross the lines of individual art disciplines. In addition, it is imperative that a complete categorization of arts or art organizations include museums because these institutions are responsible for the conservation of great works of art and making these works accessible for viewing.

Support for the arts in the United States is derived from government, individuals, corporations, foundations, and bequests. At the national level, the arts are supported in large part by government through the National Endowment for the Arts, an independent federal agency. Over the period beginning in the 1940s after the termination of WPA, and ending in the mid-1960s, support for the arts in the United States was limited to the indirect yield of tax deductions from contributions to nonprofit organizations, and the tax exempt status of revenues. In 1965, Congress created the Endowment to encourage and support American art and artists. To achieve its purpose, the Endowment receives annual appropriations from the Congress.

The Endowment is directed by a Presidentially appointed chairman, and advised by the National Council on the Arts, a group of twenty-six artists and experts in their fields in addition to the chairman. On the Council's advice, the Endowment awards grants to organizations and artists of exceptional quality and talent. Three major types of financial assistance are available: matching grants to nonprofit, tax-exempt arts organizations; matching grants to state arts agencies and regional art groups; and non-matching fellowships to artists. Recently, emphasis has been placed on establishing initiatives programs at the local level.

The need for a national agency to support the arts has been established on the ground that because the tradition of giving in the United States is decen-



SOURCE: NATIONAL ENDOWMENT FOR THE ARTS

*Data are adjusted for inflation using the Consumer Price Index U–All Items (1967=100)

tralized, it is vital to maintain an agency to insure appropriate recognition of the arts and their importance; to provide support for new and experimental ventures; to provide a cushion for the nation's most excellent artistic institutions; to encourage the diversity of American culture; and to increase access to the arts. From an economist's perspective, a national agency may be required and government funding necessary to correct economic imbalances in the event that competitive markets fail to bring about desired conditions. When the consumption of a good by one person does not restrict the consumption of the same good by another person, such goods are said to be public goods. A result in economics is that perfect competition and perfectly competitive prices, that is, prices determined solely by supply and demand in the marketplace, lead to underproduction and underconsumption of public goods. Many works of art are public goods. For example, one person viewing a painting does not prevent another from viewing it, and concerts may be attended by many persons as well. Thus, in the absence of a national agency to provide support, it is likely that at least some forms of art will be underproduced and underconsumed relative to production and consumption levels that would result under perfectly competitive conditions.

The history of total funds for programming for the National Endowment for the Arts in nominal and real (inflation adjusted) dollars is depicted in Figure 1 for the fiscal years 1966 through 1984. Economists conventionally adjust for inflation any data series reported in dollar terms. This is because the unadjusted series embody changes in quantity and the level of prices. Hence, changes in quantity and in the price level affect the magnitude of the data series at a point in time. It is generally thought changes in quantity, not changes in the price level, affect general economic welfare. Adjustment for price level changes makes the resulting series real.

Total funds for programming is defined to be the sum of program funds, state arts agencies, and treasury funds and challenge grants. The latter two categories refer to federal funds appropriated by Congress to match non-federal donations to the Endowment. In 1975, the state arts agencies component was eliminated, and it was stipulated that not less than 20 percent of the program funds is required to go to state arts agencies. Administrative funds have been subtracted from the total in order to maintain consistency of the data over time. More specifically, the adjustment is made to account for the fact that funds provided to meet administrative costs were jointly allocated to the National Endowment for the Arts and the National Endowment for the Humanities until the organizations were separated in 1978.

The data plots given in Figure 1 suggest that the history of funding can be divided into three subperiods: 1967 through 1970, 1971 through 1979, and 1980 through 1984. Table 1 shows annual average rates of growth in nominal and real terms for the fiscal

period 1967 through 1984 and for the three subperiods. However, for the reason stated previously, the primary focus will be on the changes in real dollar figures. The data for 1966 have not been included in the computations because the level of funding was atypically low in both nominal and real terms, and use of these data in computing annual average rates of growth is somewhat misleading. Specifically, the annual average rates of growth for real expenditures over the fiscal year period 1966 through 1984, and 1966 through 1970 are 17.6 percent and 28.8 percent, respectively. The latter figure in particular does not seem representative in view of the information conveyed by Figure 1. That is, the growth pattern exhibited is quite flat.

The information provided indicates that total funding has been strong in terms of annual average rates of growth over the nineteen fiscal years observed, however, the growth rates shown in Table 1 indicate growth in funding has varied considerably between subperiods. Specifically, the annual average rate of growth in real funding during the period 1971 through 1979 was 23.4 percent, while the rates in the period 1967 through 1970 and 1980 through 1984 exhibit declining real growth.

Table 1
Total Funds Available for Programming
Fiscal Years 1966-1984

	Annual Average Rates of Growth (Percent)	
Fiscal Years	Nominal Dollars	Real Dollars
1967-1984	18.8	11.1
1967-1970	1.2	– 3.3
1971-1979	32.1	23.4
1980-1984	1.1	– 5.6

By design, the National Endowment serves to encourage *other* support for the arts and to provide a national focus for recognition of excellence. To fulfill this intent, the Endowment contributes only a small percentage in the context of total giving to the arts in the United States. In fact, the Urban Institute has reported that in fiscal year 1980, the contribution from all federal government sources to all nonprofit cultural institutions was 12 percent of total giving. While 5 to 10 percent of the budgets of traditional nonprofit arts organizations is due to funding from the federal government, funds from the public sector tend to account for a much higher percentage of the budgets of local arts agencies.

Primary support for the arts in the United States is derived from individuals, corporations, foundations, and bequests, as well as from state and municipal governments. Detailed data on dollar amounts donated are difficult to obtain, however, the evidence from the Urban Institute indicates that individuals accounted for about 84 percent of all charitable donations from private sources in 1980. By far, the highest percentage of individual giving is allocated to religious organizations. Data for 1980 show the combined total of giving to literary, educational and scientific foundations, libraries, museums and zoos ranked second overall, and combined charitable giving to organizations such as Community Chests, the American Red Cross, and the American Cancer Society ranked third.

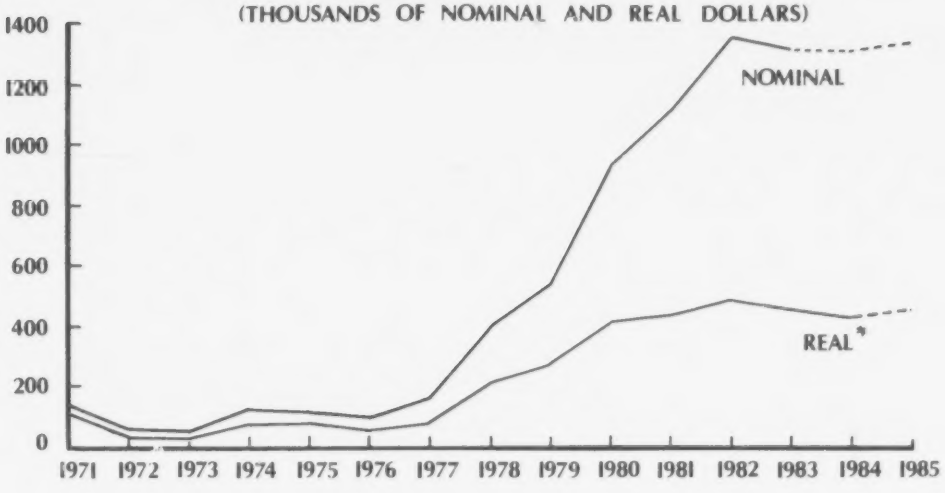
Corporations and foundations place second and third when ranked in terms of aggregate amounts contributed to arts organizations in 1980. Over the period 1975 to 1980, corporate giving was the fastest growing source of support, and in 1980 private support from corporations amounted to 5.3 percent of the total. On this basis, there has been a considerable level of optimism expressed over the outlook for corporate giving by members of the arts community and government officials. Giving from foundations accounted for 5 percent of private support.

It is interesting to note that approximately 70 percent of corporate support for the arts comes from about 1 percent of the total number of corporations in the United States. Most of the contributing corporations donate less than 1 percent of earnings. Two considerations relating to corporate giving are noteworthy. First, corporations contribute a percentage of their earnings, and aggregate earnings tend to rise and fall coincident with changes in the direction of general economic activity. Hence, corporate giving tends to be cyclical. Second, corporations must take into consideration the relationship between the allocation of their charitable giving and the image they wish to project. Most corporate giving is directed toward the more conservative or established arts where a high level of association is not likely to be detrimental, for example, large temporary exhibitions of masterpieces, and performances by opera companies and symphony orchestras. Such support usually earns the sponsoring corporations a high visibility and is often considered a part of their public relations efforts. Thus, while corporate support is critical to the arts, it cannot be counted upon to catalyze innovative artworks, nor to provide such institutions with regular support for day-to-day operations.

SUPPORT FOR THE ARTS IN GEORGIA

Primary support for the arts at the state level is derived from private contributions. Unfortunately, detailed information indicating the dollar amounts of contributions by general source is not readily available. Public support for the arts in Georgia is received from the National Endowment for the Arts, the state through budgetary appropriations, and from allocations of public funds at local levels. The Georgia

FIGURE 2: SUPPORT FOR THE ARTS IN GEORGIA
STATE OF GEORGIA APPROPRIATION, FUNDS FOR PROGRAMMING
FISCAL YEARS 1971–1985
(THOUSANDS OF NOMINAL AND REAL DOLLARS)



SOURCE: GEORGIA COUNCIL FOR THE ARTS AND HUMANITIES

*Data are adjusted for inflation using the Consumer Price Index U – All Items (1967 = 100)
Projections for 1984 and 1985 based on figures from the Office of Planning and Budget and the Georgia Economic Forecasting Project

FIGURE 3: SUPPORT FOR THE ARTS IN GEORGIA
NATIONAL ENDOWMENT FOR THE ARTS
FISCAL YEARS 1971–1984
(THOUSANDS OF NOMINAL AND REAL DOLLARS)

SOURCE: GEORGIA COUNCIL FOR THE ARTS AND HUMANITIES

*Data are adjusted for inflation using the Consumer Price Index U – All Items (1967 = 100)

Table 2
Funds Available for Programming in Georgia, Appropriations from the State of Georgia, Fiscal Years 1971-1985

	Annual Average Rates of Growth (Percent)	
Fiscal Years	Nominal Dollars	Real Dollars
1971-1985	18.5	10.3
1971-1976	– 6.6	–12.6
1977-1982	52.3	38.6
1983-1985	2.7	– 0.3

Table 3
Support for the Arts in Georgia, National Endowment for the Arts, Funds for Programming, Fiscal Years 1971-1984

	Annual Average Rates of Growth (Percent)	
Fiscal Years	Nominal Dollars	Real Dollars
1971-1984	9.6	1.9
1971-1975	27.3	19.1
1976-1984	3.2	– 4.4

Council for the Arts and Humanities is the state agency receiving and allocating funds to arts programs from the National Endowment and the state. The Council advises the Office of the Governor as to the status and needs of the arts and art organizations in the state.

Figures 2 and 3 show the patterns of funding for programming in Georgia as recorded by the Georgia Council on the Arts and Humanities. Figure 2 demonstrates that the rates of growth of funding from the state have differed dramatically over the periods 1971 to 1976, and 1977 to 1982. The figures for 1983 through 1985 indicate reasonably stable growth rates for real funding in the three fiscal years. These observations are confirmed by the growth rates shown in Table 2.

Funds for programming from the National Endowment for the Arts are shown in Figure 3. The data plotted do not include grants awarded directly to individual arts organizations other than the Council. The pattern of funding growth differs from those presented to this point. For example, the real decline in funding over the period 1975 through 1978, and the precipitous drop in 1983 are in sharp contrast to the patterns exhibited in Figures 1 and 2. Table 3 shows that the average annual rate of growth in real funding over the fourteen fiscal years observed is quite moderate.

On the brighter side, Figure 3 shows funding in fiscal year 1984 is relatively strong; the percentage change over 1983 amounting to a real dollar increase of 52 percent. It must be emphasized that because these amounts include only funds recorded by the Council, they understate National Endowment support of organizations in the state. For example, the $400,000 grant awarded by the Endowment to the High Museum in September 1983 is not reflected in Figure 3.

The arts in Atlanta have received a considerable level of attention in the recent past. The High Museum, the Atlanta Ballet, and the Atlanta Symphony are a few of the organizations receiving increasing levels of recognition and support. In addition to the accomplishments of these organizations, there are ongoing efforts to enhance the arts and arts organizations outside of Atlanta. One program of exceptional importance involves plans for the development of the new Georgia Museum of Art on the campus of The University of Georgia.

Established in 1948 by a gift of a collection of American paintings from Alfred Heber Holbrook, the Georgia Museum of Art receives no direct support from the state. The majority of funds for the museum's operation comes from the resident instruction budget of The University of Georgia with the remaining from local individuals, grants (both federal and from the Georgia Council), and to a lesser extent from corporations.

Plans are underway for a new building to house the $12 million collection and to provide space to present exhibitions of national and international significance. The Georgia Museum of Art has established a reputation of presenting major exhibitions such as *J.M.W. Turner Watercolors from The British Museum*, proving that it attracts audiences not only from Georgia, but from throughout the Southeast. The new building designed by Edward Larrabee Barnes will cost approximately $12 million, half of which will come from the private sector (individuals, foundations and corporations), and the remainder is anticipated to come from the state. Considering that the Georgia Museum of Art is the state's official art museum, this one-time request for matching funds is modest and falls far below North Carolina's $25 million support for their state's new art museum.

THE OUTLOOK

Over the next few years, the outlook for support for art organizations in the United States and Georgia is clouded by numerous uncertainties relating to the peformance of the national and state economies, and the impact of public policies on nonprofit arts organizations. Recent data indicate that the recovery is strong but moderating, and the overall outlook for economic growth in 1984 remains favorable. Beyond 1984, it appears likely that the national economy will grow at an average annual rate of about 3.5 percent

over the 1985-1990 period. Because economic activity in Georgia is linked to the performance of the national economy, it appears that economic activity in Georgia will follow a cyclical pattern similar to that of activity at the national level, although the average annual rate of growth in Georgia should remain somewhat above that of the nation's economy. Because support of the arts is related to such economic indicators as personal income, corporate earnings, and tax revenues, forecasts of the future performance of the economy must be considered.

Another source of uncertainty is the lack of knowledge of the impacts certain features of the 1981 Economic Recovery Tax Act will have on giving to arts institutions. The primary cause for concern is due to the fact that the Tax Act reduced the highest tax rate from 70 percent to 50 percent. This reduction lowers the tax incentive to give money to charity. In the past, when an individual gave $100 to a museum, the total donation amounted to $30 more than the federal government would have taken in taxes. Under the reduced rate, the individual gives away $50. Thus, the price of giving increases under the new system. While the tax incentive to give is reduced, some analysts have argued that the Tax Act increases the willingness to give because reduced tax rates combined with lower anticipated inflation rates will leave taxpayers with more after-tax real income. Others argue that the change in the tax rate will have little or no effect on giving because people give for personal reasons not related to taxes or financial incentives. This latter argument is not well-supported by conventional economic theory.

The 1981 Economic Recovery Tax Act also lowered corporate taxes and accelerated the depreciation schedule used for writing off equipment. One possible effect of the new system will be to reduce corporate giving to the arts. That is, with taxes and taxable profits down, corporations will not need charitable deductions to reduce the tax burden. Alternatively, it has been argued that corporations will increase giving in response to an improvement in cash flow or added public pressure.

Prior to passage of the Tax Act, each year foundations were required to give away either an amount equal to 5 percent of their assets or all income, whichever was greater. Now, foundations must give away an amount equal to 5 percent of their assets, but they may retain income earned over and above that amount. The impact on charitable giving is not clear. Foundations may choose to retain the income, or they may use it to invest in profitable ventures and pass a proportion of the gains on to the arts by increasing charitable giving. The Tax Act also provides for gradual increases in the exemption on estates from the prior level of $175,000 to $600,000 in 1987. Over the same period, the maximum estate tax rate falls from 70 to 50 percent. At least one expert, a member of the Presidential Task Force on the Arts and Humanities, has concluded testamentary contributions will decline. In addition to these considerations, the outlook for giving to the arts is complicated by the prospect that a tax increase is likely to be passed by Congress in 1985. Many economists anticipate this legislation will increase personal and corporate income taxes. So the net effect of current tax laws and the expected changes on charitable giving is far from clear.

Over the next several years, the outlook for public support and charitable giving for the arts remains uncertain. There does not appear to be any evidence that the arts will experience a boom over the next few years, yet the evidence does not support a claim that a decline is certain. Despite the uncertainties, it is clear that the importance of private support will not diminish. The economic value of contributions must be assessed not only in terms of direct and immediate economic gains, tax deductions, for example. One must also consider indirect economic benefits, that is, the contributions the arts make to education and economic growth and development at the national, regional, and local levels.

Phillip A. Cartwright is Director of the Georgia Economic Forecasting Project and assistant professor of economics. Richard S. Schneiderman is Director of the Georgia Museum of Art. *The authors thank Corrine Anderson, Assistant Director of the Georgia Council for the Arts and Humanities for her assistance in providing information on financial contributions to the arts in the state.*

Unemployment Patterns in Georgia: 1975, 1979, 1982

Part II

Suzanne A. Lindsay

In the last issue, Part I of this article described patterns of annual average unemployment rates in Georgia's counties during 1975, 1979 and 1982. It also discussed some demographic characteristics of 47 counties that had very high unemployment rates in 1982 and those of a contrasting group of 25 counties with lower unemployment rates during that year. Demographically, the 47 counties (abbreviated as VHURCs) tended to have smaller, more rural populations and smaller labor forces than the 25 low unemployment rate counties (LURCs). The economic characteristics of the two groups also differed considerably, as data on employment, earnings, personal income, and overall economic rankings indicate.

WAGE AND SALARY EMPLOYMENT

Employment figures show the other side of unemployment statistics; however, county unemployment rates and civilian labor force estimates are prepared by *place of residence*, but detailed county employment data are available only by *place of work*. The U.S. Department of Commerce's Bureau of Economic Analysis annually estimates employment by *place of work*, and the Bureau of the Census prepares county estimates of *place of work* employment (excluding certain categories such as self-employment, government workers, etc.) during the week of March 12. To the extent that workers live in one county and work in another, neither set of employment data will apply to patterns of unemployment by residence. Nonetheless, the data do indicate the kinds and relative importance of sources of employment available in each county.

Detailed BEA county wage and salary employment figures for 1981, the latest year available, indicate the VHUR and LUR counties differed considerably in such sources. Tables 1 and 2 show the percentages of wage and salary employment in various industries for individual counties, arranged by geographic area; Table 3 summarizes the percentage of counties in each group falling above or below the statewide percentage of employment for the industry. Although individual county values varied widely, 66 percent of VHURCs had farm wage and salary employment percentages higher than the state value; only 40 percent of LURCs had farm employment percentages above that level. Conversely, nonfarm wage and salary employment percentages were above the statewide level for only 34 percent of VHURCs but for 60 percent of LURCs.

PRIVATE AND GOVERNMENTAL EMPLOYMENT

Nonfarm wage and salary employment may be subdivided into private employment and governmental employment (BEA estimates include military employment, another difference from Department of Labor estimates, which are for the *civilian* labor force). Again, the study groups differed: 40 percent of VHURCs and 24 percent of LURCs had percentages of private employment above the state value, but only 38 percent of VHURCs versus 72 percent of LURCs had governmental employment percentages above the state level.

TABLE 1

PERCENTAGE DISTRIBUTION OF 1981 EMPLOYMENT* BY INDUSTRY IN COUNTIES WITH VERY HIGH UNEMPLOYMENT RATES, 1982

AREA AND COUNTY	FARM	NON-FARM	PRIVATE	AG. SERVICES, ETC.	MINING	CONSTRUC-TION	MANUFACTURING			TRANS., PUB. UTIL.	WHOLESALE & RETAIL TRADE	FIN., INS., & R.E.	SERV.	GOVT.
							TOTAL	NON-DURABLE	DURABLE					
North Georgia - Highlands														
Bartow	1.2	98.8	82.8	(D)	(D)	6.8	46.5	39.6	6.8	6.0	13.4	2.0	7.3	16.0
Chattooga	0.8	99.2	85.2	(L)	0	1.7	62.1	60.0	2.0	1.7	9.8	3.2	6.5	14.1
Dawson	20.6	79.4	42.9	(D)	0	2.4	21.6	19.0	2.7	1.6	11.3[a]	1.7	2.9	36.5
Fannin	1.4	98.6	68.8	(D)	(D)	5.9	24.8	23.0	1.8	5.8	22.1	2.2	7.4	29.8
Floyd	0.8	99.2	81.0	(D)	(D)	3.1	34.7	24.8	9.8	4.4	17.6	3.1	17.8	18.2
Franklin	3.9	96.1	81.3	1.4	0	3.2	34.2	28.3	5.9	3.3	18.1	3.4	17.7	14.8
Gordon	3.3	96.7	84.5	(D)	(D)	2.7	52.0	47.5	4.5	3.9	12.3	1.8	10.5	12.3
Haralson	0.5	99.5	84.8	(L)	0	1.4	57.6	45.4	12.2	5.3	7.2[a]	2.4	(D)	14.8
Murray	2.2	97.8	84.6	0.2	(D)	2.3	65.5	60.8	4.7	1.6	6.5[a]	1.5	2.8	13.2
Polk	0.6	99.4	80.9	0.1	0	2.7	48.7	33.8	14.9	3.5	13.1	1.9	10.8	18.5
Union	7.9	92.1	61.7	(D)	0	6.2	33.7	27.2	6.4	1.2	9.4[a]	2.1	6.0	30.4
White	3.9	96.1	73.3	0.8	0	5.2	30.2	(D)	(D)	2.6	16.6	1.9	16.2	22.9
Whitfield	0.6	99.4	87.2	0.1	0.2	2.2	53.8	48.4	5.4	8.5	11.9	2.3	8.4	12.2
North Georgia - East														
Elbert	1.0	99.0	82.4	(D)	(D)	3.7	33.5	13.0	20.5	4.3	17.5	1.7	13.8	16.6
Glascock	5.4	94.6	71.5	(L)	0	0	44.4	(D)	(D)	1.9	2.5[a]	(D)	(D)	23.1
Jefferson	6.1	93.9	74.2	1.0	(D)	(D)	36.5	17.6	18.9	3.1	10.9	2.0	15.8	19.6
Lincoln	2.3	97.7	77.4	(D)	0	5.0	45.4	31.4	15.0	(D)	8.5	1.3	14.4	20.3
McDuffie	1.2	98.8	85.0	(D)	(D)	3.6	48.9	38.8	10.1	1.9	14.0	2.0	13.1	13.8
Oglethorpe	12.6	87.4	60.5	(D)	(D)	4.5	15.0	8.5	6.5	0	8.9	2.0	25.2	26.9
Taliaferro	13.5	86.5	55.8	(L)	0	(L)	7.6	1.2	6.4	0	15.5	7.0	21.9	30.7
Warren	5.9	94.1	76.1	1.4	(D)	0.6	46.0	31.1	14.9	(D)	8.6[a]	1.2	12.7	18.1
Wilkes	5.2	94.8	79.6	5.5	(D)	2.0	39.3	33.2	6.0	3.0	9.2[a]	2.1	14.3	15.1
Middle Georgia - West														
Butts	1.2	98.8	72.1	(L)	0	2.3	31.4	26.5	4.8	3.8	16.2	2.3	16.1	26.7
Coweta	0.9	99.1	82.6	(D)	(D)	3.2	38.3	20.7	17.6	6.7	16.1	2.6	15.5	16.5
Crawford	18.5	81.5	52.7	2.3	(D)	2.6	10.8	2.8	8.0	(L)	12.0	(D)	20.2	28.8
Harris	3.7	96.3	79.0	0.4	0	1.8	13.5	(D)	(D)	2.4	11.1	1.6	48.2	17.3
Meriwether	4.0	95.9	73.8	1.4	0	0.9	41.3	34.9	6.4	3.6	13.6	2.3	10.8	22.1
Spalding	0.8	99.2	79.9	0.2	0.1	1.8	37.0	35.1	1.9	3.4	20.1	3.6	13.7	19.3
Talbot	5.0	95.0	67.5	(L)	(D)	4.9	13.5	1.4	12.2	6.1	6.6[a]	3.9	24.2	27.5
Upson	0.9	99.1	82.0	0.1	0	1.6	50.9	48.5	2.7	1.4	13.4	1.9	12.7	17.1
South Georgia - West														
Calhoun	22.3	77.7	56.5	1.8	0	2.7	18.6	(D)	(D)	1.8	14.1	1.6	16.3	21.2
Quitman	11.5	88.5	57.9	(L)	0	0	11.0	0	11.0	(L)	11.3	(D)	(D)	30.5
Randolph	13.0	87.0	66.5	0.8	0	1.3	25.7	9.1	16.6	2.2	14.5	2.4	19.6	20.5
Stewart	11.1	88.9	64.3	1.6	0	1.6	23.8	(D)	(D)	3.8	11.3	1.2	21.0	24.5
South Georgia - Central														
Ben Hill	3.3	96.7	79.0	0.7	0	4.9	33.1	22.5	12.6	6.6	15.0	3.2	13.4	17.8
Crisp	4.9	95.1	72.6	0.4	0	3.5	22.8	12.1	10.7	3.4	23.7	3.2	19.1	18.9
Dooly	18.9	81.1	62.7	1.9	0	0.5	23.7	15.9	7.8	2.3	14.2	2.1	18.0	18.4
Macon	15.4	84.6	68.4	1.4	0	3.3	22.1	20.1	2.1	1.1	12.6	3.5	24.4	16.2
Sumter	5.1	94.2	73.5	(D)	(D)	4.3	25.3	7.9	17.4	4.1	19.1	2.1	16.2	21.5
Turner	8.9	91.9	74.8	0.8	0	4.3	31.3	12.3	19.0	1.4	18.1	2.3	17.1	16.3
Wilcox	17.6	82.4	56.9	(D)	0	(D)	17.0	(D)	(D)	5.1	9.4	2.3	22.0	25.5
Worth	18.5	81.5	64.1	1.7	0	2.7	23.1	17.1	6.0	1.3	15.2	2.2	17.9	17.5
South Georgia - East														
Brantley	14.0	86.0	51.3	0.8	0	(D)	20.9	12.7	8.3	(D)	8.9	(L)	5.2	34.7
Clinch	1.4	98.6	79.7	8.0	0	(D)	47.8	(D)	(D)	(D)	8.4	0.9	8.6	18.9
McIntosh	0.5	99.5	73.2	7.9	(D)	1.0	23.8	(D)	(D)	2.3	22.7	(D)	14.9	26.3
Pierce	16.9	83.1	61.2	1.7	0	7.1	13.9	11.2	2.6	9.5	17.2	4.1	7.8	22.9
Ware	1.4	98.6	76.6	0.2	(L)	3.5	19.0	11.6	7.4	12.9	21.9	3.3	15.7	22.0

* Wage and Salary employment, by place of work

D = deleted to preserve confidentiality; data included in totals

L = less than 10 wage and salary jobs

[a] Minimum estimate because of deleted data

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System Table 25.00 "Employment by Type and Broad Industrial Sources, 1976-81" (April 1983)

TABLE 2

PERCENTAGE DISTRIBUTION OF 1981 EMPLOYMENT* BY INDUSTRY IN SELECTED COUNTIES WITH LOWER UNEMPLOYMENT RATES, 1982

AREA AND COUNTY	FARM	NON-FARM	PRIVATE	AG. SERVICES, ETC.	MINING	CONSTRUCTION	MANUFACTURING			TRANS., PUB. UTIL.	WHOLESALE & RETAIL TRADE	FIN., INS., & R.E.	SERV.	GOVT.
							TOTAL	NON-DURABLE	DURABLE					
North Georgia - Highlands														
Catoosa	1.2	98.8	69.8	(L)	0	2.0	29.8	(D)	(D)	(D)	22.5[a]	2.0	6.3	28.9
Lumpkin	22.0	78.0	45.3	0.8	(L)	1.9	20.7	12.3	8.3	2.5	10.0[a]	1.8	7.3	32.7
Towns	1.7	98.3	69.2	0	0	2.8	12.6	11.0	1.6	9.7	17.6[a]	2.9	23.4	29.1
North Georgia - East														
Banks	4.3	95.7	77.1	1.8	0	4.5	53.8	51.3	2.5	(L)	3.9	0.6	7.0	18.7
Clarke	0.7	99.3	69.3	0.2	(b)	3.2	24.3	14.3	10.3	2.5	19.8	3.1	16.3	30.0
Columbia	0.3	99.7	23.3	(D)	0	2.6	8.9	1.8	7.1	0.5	4.8[a]	0.8	4.9	76.5
Oconee	11.9	88.1	64.0	(D)	(D)	6.9	18.2	4.6	13.6	2.3	10.2	2.1	22.1	24.1
Richmond	0.1	99.9	67.8	(D)	(D)	4.7	17.0	12.1	5.3	3.6	20.7	4.3	17.1	32.1
Middle Georgia - West														
Cobb	0.1	99.9	82.5	(D)	(D)	6.7	20.3	4.9	15.4	5.6	27.6	5.1	16.9	17.4
DeKalb	(b)	100.0	84.8	(D)	(D)	5.7	14.0	6.8	7.2	6.2	29.8	7.3	21.6	15.2
Douglas	0.7	99.3	71.8	0.5	(D)	8.1	8.3	2.1	6.2	5.1	21.6[a]	2.9	20.6	27.5
Fayette	0.9	99.1	77.4	0.6	(D)	6.3	24.3	11.3	17.1	4.8	11.3[a]	4.1	10.2	21.6
Fulton	(b)	100.0	83.4	(D)	(D)	3.4	10.2	6.2	4.0	9.4	26.7	8.8	24.5	16.6
Gwinnett	0.2	99.5	84.3	(D)	(D)	8.0	26.6	7.1	19.5	3.6	27.5	2.9	15.2	15.5
South Georgia - West														
Chattahoochee	0	100.0	2.8	(b)	0	0.2	0.4	(D)	(D)	(D)	0.3[a]	0.3	1.5	97.2
Webster	22.3	77.7	58.0	1.8	0	(L)	31.2	0	31.2	(L)	5.0	1.8	17.0	19.6
South Georgia - Central														
Bleckley	6.9	93.1	62.9	3.0	0	2.3	17.7	15.6	2.2	2.1	17.5	2.3	18.3	30.2
Brooks	23.1	76.9	54.9	(D)	0	0.8	20.3	19.9	0.4	2.1	9.6[a]	2.7	12.3	21.9
Grady	17.4	82.6	64.8	0.9	0	1.8	31.5	19.6	11.9	2.4	14.4	2.3	11.6	17.7
Houston	1.3	98.7	35.7	0.6	0	1.9	7.8	3.6	4.1	1.3	12.5	2.1	9.5	63.0
Peach	5.7	94.3	70.6	4.1	0	2..	32.0	9.0	23.0	1.3	13.4	2.4	14.6	23.7
South Georgia - East														
Camden	0.4	99.6	7..	0.6	0	4.4	31.5	29.2	2.3	2.1	8.7	2.1	10.5	39.7
Lanier	19.9	80.1	56.3	(L)	0	3.1	12.2	(D)	(D)	2.3	12.3	2.1	23.9	23.8
Liberty	0.1	99.9	17.1	0.5	0	1.9	2.8	2.6	0.2	1.3	6.6	0.9	2.9	82.8
Tattnall	10.5	89.5	61.1	(D)	0	4.7	17.2	14.9	2.3	3.6	9.5[a]	2.2	15.2	28.4
Georgia	1.8	98.2	76.7	0.5	0.3	4.3	21.8	14.1	7.7	6.0	21.4	4.9	17.3	21.6

* Wage and Salary employment, by place of work
D = deleted to preserve confidentiality; data included in totals
L = less than 10 wage and salary jobs
[a] Minimum estimate because of deleted data
[b] Less than 0.1 percent

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System Table 25.00 "Employment by Type and Broad Industrial Sources, 1976-81" (April, 1983)

Figures for private wage and salary employment by industry (see Table 3), indicate that VHURCs were more likely than LURCs to have employment percentages above the state level in manufacturing; as a group, VHURCs were more likely to fall below the state level in all other industries. Many LURCs, however, also fell below statewide levels of employment in construction, transportation and public utilities, wholesale and retail trade, finance, insurance and real estate, and services. Metropolitan counties among the LURCs, such as Richmond, Cobb, DeKalb, Fulton and Gwinnett, had percentages of employment well above statewide levels in many of these categories (see Table 2). Even among counties with relatively low unemployment rates in 1982, most of the smaller counties lacked the broadly-based employment characteristic of urban areas.

DIFFERENCES IN MANUFACTURING EMPLOYMENT

Seventy-four percent of VHURCs had total manufacturing employment above the state value (21.8 percent) in 1981; only 36 percent of LURCs had percentages above that level. In nondurable manufacturing, 55 percent of VHURCs but only 24 percent of LURCs were above the statewide level of 14.1 percent of wage and salary employment. The two groups were closer in durable manufacturing: 43 percent of VHURCs and 36 percent of LURCs had employment percentages greater than 7.7 percent.

The impact of the 1981-82 recession on manufacturing, however, was not uniform; some manufacturing industries—notably those facing growing foreign competition or linked to construction—suffered much more severely than others. The kinds of nondurable and durable manufacturing industries offering employment in individual VHURCs and LURCs are therefore important to an understanding of unemployment rate patterns.

INCIDENCE OF INDUSTRIES BY COUNTY

Although data for 1982 are not available, detailed information on manufacturing employment by major industry group in March 1981 indicates great variation in both the kinds of industry in each county, and in the proportion of counties reporting employment in a given industry (see Table 4). Several industries were reported by high percentages of counties in both groups: textile manufacturing, by 62 percent of VHURCs and 44 percent of LURCs; apparel and other textile goods, by 81 percent of VHURCs and 68 percent of LURCs; and lumber and wood products by 64 percent of VHURCs and 72 percent of LURCs. All three industries were severely affected by the 1981-82

Table 3
Relationship of Selected County Percentage Shares of Wage and Salary Employment by Industry to Statewide Values, 1981

% of Employment by Industry: Category	Employment Category % for State	% of Group** Above State Value		% of Group Below State Value		% of Group Data Not Available*	
		High Unemp. Cos.	Low Unemp. Cos.	High Unemp. Cos.	Low Unemp. Cos.	High Unemp. Cos.	Low Unemp. Cos.
Farm	1.8	66	40	34	60	0	0
Nonfarm	98.2	34	60	66	40	0	0
Private	76.7	40	24	60	76	0	0
Ag. Serv., Etc.	0.5	40	44	23	16	36	40
Mining	0.3	0	0	66	68	34	32
Construction	4.3	26	40	66	60	9	0
Manufacturing	21.8	74	36	26	68	0	0
Non-Durable	14.1	55	24	28	64	17	12
Durable	7.7	43	36	40	52	17	12
Trans., Public Utilities	6.0	15	12	77	80	9	8
Wholesale/ Retail Trade	21.4	9	24	91	76	0	0
Fin., Ins., Real Estate	4.9	2	12	89	88	9	0
Services	17.5	30	28	64	72	6	0
Government	21.6	38	72	62	28	0	0

Source: Based on U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, "Employment by Type and Broad Industrial Sources, 1976-81," Table 25.00, (April, 1983).
*Deleted to protect confidentiality or exact numbers not available (less than 10 employees).
**Percentages may not add to 100 because of rounding.

Table 4
Percentage of Selected Counties Reporting Employment in Industry Groups, 1981

Industry Group	VHUR Counties, 1982 (% of 47**)	LUR Counties, 1982 (% of 25**)
Non-Durable		
Food	32	40
Tobacco	2	0
Textile Mfg.	62	44
Apparel, etc.	81	68
Paper	15	36
Printing	19	28
Chemical	13	32
Petroleum R.	0	20
Rubber	32	24
Leather	13	16
Durable		
Lumber, Wood Prod.	64	72
Furniture	15	32
Stone, Clay, Glass	23	36
Primary Metals	13	24
Fabricated Metals	30	36
Non-Elec. Machinery	23	60
Electric Machinery	19	36
Transportation Equip.*	6	20
Motor Vehicle	2	20
Instruments	4	24
Misc. Manuf.	9	16

*Excludes motor vehicle manufacturing.
**Data not available for 2 VHUR counties and 2 LUR counties.
Source: U.S. Department of Commerce, Bureau of the Census, *County Business Patterns, 1981, Georgia* (CBP-81-12).

Table 5
Number of Industry Classifications for Which Employment Was Reported by Selected Counties in 1981

# of Industry Groups Reported	VHUR Counties, 1982 (N=47)		LUR Counties, 1982 (N=25)	
	#	%	#	%
1-3	19	40	9	36
4-6	13	28	5	20
7-9	9	19	2	8
10 or more	4	9	7	28
Data not available	2	4	2	8

Source: Based on data from U.S. Department of Commerce, Bureau of the Census, *County Business Patterns, 1981, Georgia* (CBP-81-12).

recession; to the extent that VHUR counties depended heavily on manufacturing employment in those industries, their overall levels of employment were also affected. As Table 5 shows, many VHURCs had a very narrow industrial base in 1981. Even VHUR counties reporting larger numbers of industries often were heavily dependent on a few major industries (such as textiles in Floyd and Whitfield counties), around which much other employment revolved. The large-population counties around Atlanta, in contrast, had diversified industries with no one group dominating employment in 1981; examples are Fulton county, with 20 industry groups employing workers, DeKalb, with 19, and Gwinnett, with 15.

DISTRIBUTION OF EARNINGS BY INDUSTRY

The relative shares of various industries in the total earnings of a county also illustrate the differences between VHURCs and LURCs. As a group, VHURCs had relatively larger shares of earnings from farming, agricultural services, and manufacturing than did the overall state economy, and relatively lower shares from mining (a minor industry statewide), construction, transportation and public utilities, trade, finance, services and government (see Table 6). Surprisingly, the sample of LURCs tended to have values below the state proportion in every industry except farming and government, although metropolitan LURCs such as Cobb, DeKalb, Fulton and Gwinnett counties showed shares of earnings from trade, finance and services that were well above overall state levels. Differences in earnings by industry and in private/government earnings suggest some of the factors that may have contributed to relatively low unemployment rates in LURCs: they may have diversified economies with relatively little dependence on any one sector, drawing support from large populations, or they may enjoy the relative stability provided by high military and civilian government employment expenditures. Counties containing major military bases (Chattahoochee, Houston, Cobb, Camden and Liberty counties, for example) or serving as educational, administrative or research centers for civilian government (Fulton and Clarke counties) had relatively low unemployment rates in 1982.

The county-by-county importance of manufacturing earnings varied greatly in 1981, ranging from zero to nearly 70 percent of total earnings for VHURCs and from zero to almost 50 percent for LURCs. For 23 percent of VHURCs and 52 percent of LURCs the manufacturing share of earnings was less than 20 percent of total earnings; for 43 percent of VHURCs and 36 percent of LURCs the share was between 20 percent and 40 percent; and for 34 percent of VHURCs and 12 percent of LURCs, the share was 40 percent or greater. In 1981, VHURCs clearly depended on manufacturing for a greater share of earnings than did the sample LURCs.

MAJOR COMPONENTS OF PERSONAL INCOME AND OTHER ECONOMIC RANKINGS

As might be expected from their differing patterns of employment and earnings, VHURCs and LURCs differed in personal income, a more general measure of

Table 6
Relationship of Selected County Percentage Shares of Earnings by Industry to Statewide Values, 1981

% of Earnings by Industry: Category	Earnings Category % for State	% of Group Above State Value		% of Group Below State Value		% of Group Data Not Available*	
		High Unemp. Cos.	Low Unemp. Cos.	High Unemp. Cos.	Low Unemp. Cos.	High Unemp. Cos.	Low Unemp. Cos.
Farm	2.0	79	52	21	48	0	0
Nonfarm	98.0	21	48	79	52	0	0
Private	79.3	38	20	62	80	0	0
Ag. Serv., Etc.	0.4	47	44	17	16	36	40
Mining	0.4	2	0	53	56	45	44
Construction	5.2	32	44	57	52	11	4
Manufacturing	23.5	66	44	34	56	0	0
Trans., Public Utilities	10.0	13	8	79	84	9	8
Wholesale/ Retail Trade	19.2	11	20	89	80	0	0
Fin., Ins., Real Estate	5.5	4	8	87	92	9	0
Services	15.2	11	32	83	68	6	0
Government	18.7	36	64	64	36	0	0

Source: Based on U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, "Major Sources of Personal Income, 1976-81," Table 5.00 (April, 1983).
*Deleted to protect confidentiality or less than $50,000 in base.

economic standing. The major components of personal income are net earnings, dividends, interest and rent, and transfer payments.

1981 BEA data show that earnings represented a lower share of personal income for VHURCs and transfer payments a higher share than for LURCs; dividends, interest and rent proportions were lower for LURCs (see Table 7). As a group, VHURCs were more likely to rank lower in taxable sales, per capita income and overall economic activity than LURCs. In 1981, taxable sales in 56 percent of the VHURCs were in the lower half of the rankings for all state counties; and only 19 percent in the top quartile (versus 40 percent in the lower half and 32 percent in the highest quartile for the LURCs). In 1981 per capita income, 53 percent of the VHURCs were in the lower half of the rankings, and 19 percent were in the top 25 percent (versus 48 percent in the lower half and 28 percent in the top quartile for LURCs).

When Master Economic Rank, a concept developed by Paul Mangold of the Georgia Department of Revenue to evaluate overall economic standings of Georgia's counties, is examined, 1981 data show that 53 percent of the VHURCs were in the lower half of the rankings and 17 percent were in the top quartile. In the LURCs, 26 percent were in the lower half and 40 percent were in the top quartile.

Table 7
Range of Major Components of Personal Income in Selected Counties, 1981

Component	VHUR Counties, 1982 (47) % of Personal Income	LUR Counties, 1982 (25) % of Personal Income
	Range	Range
Net Earnings	45.7 - 78.8	52.8 - 94.1
Dividends, Interest, Rent	7.1 - 26.5	2.1 - 26.6
Transfer Payments	11.4 - 36.4	3.6 - 23.1

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, "Personal Income by Major Sources, 1976-81," Table 5.00 (April, 1983).

SUMMARY

As a group, counties with very high unemployment rates (10 percent or higher) in 1982:

1. had small populations and labor forces and were growing relatively slowly;
2. were more rural than counties as a whole;
3. had farm, agricultural services, and manufacturing

employment and earnings above the state level in 1981, but employment and earnings below statewide levels in trade, transportation, finance, and services;

4. tended to have few industries offering employment, with textiles/apparel and lumber/wood products dominating (a characteristic which, because of the severe nationwide impact of the recession on those industries, helps to explain regional patterns of high unemployment rates);
5. had a lower share of personal income from net earnings and a larger share from transfer payments; and
6. were more likely to fall in the lower half of rankings of county economic activity.

The very high unemployment rates experienced by 47 counties in Georgia in 1982 resulted from a variety of individual circumstances but had certain common elements. In general, the counties were not diversified industrially, lacked major governmental spending and were too far away from major population centers to serve as "bedroom" counties. Forces that singly or in combination helped to sustain employment and earnings in counties with lower unemployment rates, operated to a much lesser degree within these areas.

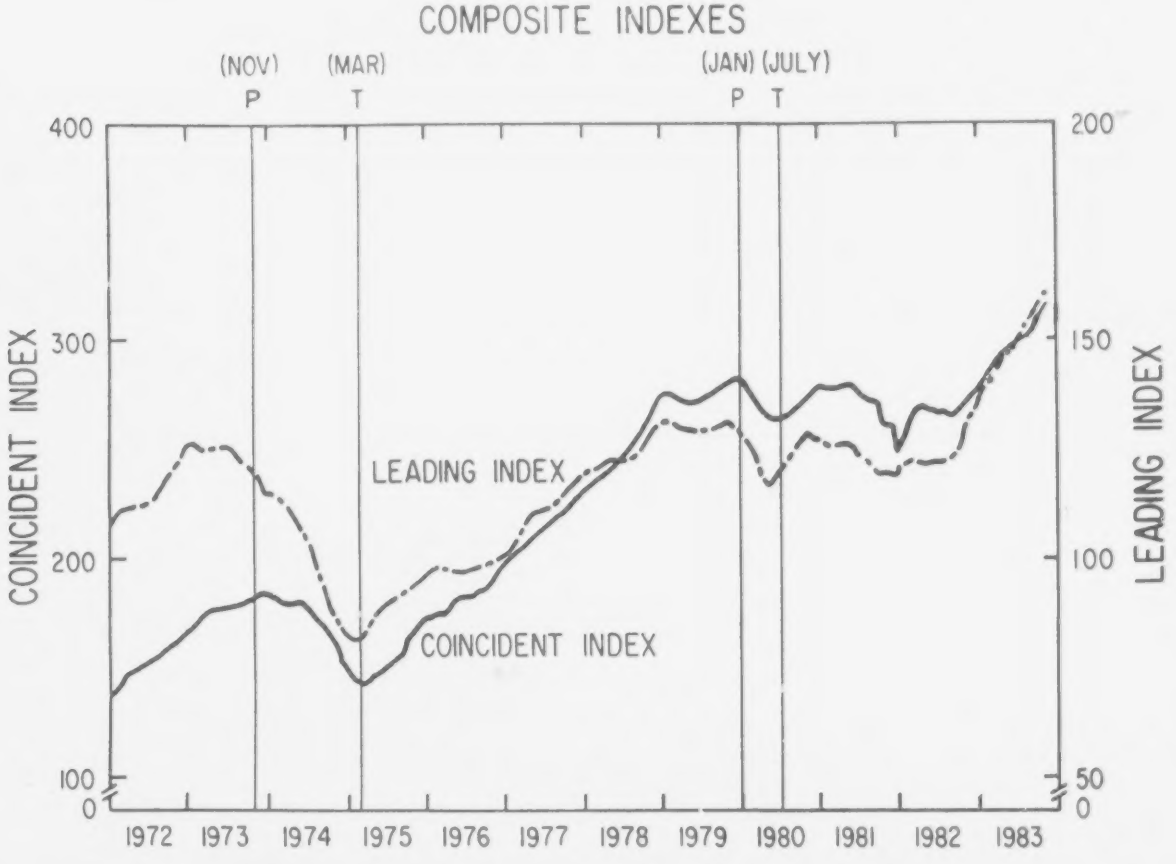
Composite Indexes of Leading and Coincident Georgia Economic Indicators

The 2.4 percent advancement of both the leading and coincident indicators in October provided good news to support an optimistic outlook for 1984. The coincident index advanced primarily in response to a robust 4.3 percent month-over-month increase in seasonally adjusted real retail sales. At the same time, real average weekly earnings in manufacturing and nonagricultural employment rose by 0.6 and 0.5 percent, respectively.

The increase in the leading index was fueled by healthy signs from the labor market. Seasonally adjusted initial unemployment claims dropped nearly 4 percent in October, and the Conference Board's series of Help Wanted Advertisements, Atlanta, jumped 18.5 percent. Consistent with an anticipated moderation in construction activity, new housing permits declined a seasonally adjusted 1.1 percent.

The November indicators reflected the state's continued economic health. On a month-to-month basis, the leading and coincident indicators advanced by 3.5 and 2.2. percent, respectively. Despite a 13.8 percent increase in seasonally adjusted unemployment claims, the index of leading indicators posted a healthy gain, thanks to a 60.4 percent jump in seasonally adjusted new housing permits. Help wanted advertisements in Atlanta rose 2.2 percent.

The coincident indicators turned in a somewhat weaker performance compared to October. Real retail sales rose 0.1 percent, real average weekly earnings in manufacturing posted a 0.5 percent gain, and nonagricultural employment climbed 0.4 percent.



Note: P (peak) indicates the end of general business expansion at the national level and the beginning of recession; T (trough) indicates the end of general business recession at the national level and the beginning of expansion.

GEORGIA BUSINESS STATISTICS

SERIES	NOV 1983	OCT 1983	SEPT 1983	NOV 1982
Georgia Leading Indicators Index[1] (1969=100)	160.67	155.18	152.98	128.51
Georgia Coincident Indicators Index[1] (1969=100)	316.42	309.64	304.60	268.29
Nonagricultural Employment[2] (thousands)	2289.2	2278.7	2269.4	2217.1
Manufacturing Employment[2] (thousands)	515.4	515.0	513.0	494.5
Average Weekly Earnings, Manufacturing[2] (dollars)	302.40	299.29	295.65	275.37
Help Wanted Advertising, Atlanta Index[3] (1967=100)	229	224	189	141
Taxable Retail Sales[4] ($ millions)	2662.0	2640.8	2686.5	2356.2
Building Permits[5]				
Residential Housing Units, Private (thousands)	5.3	5.3	5.4	3.0
Value of Residential Housing ($ thousands)	197015	201072	200360	112938
Value of Nonresidential Construction ($ thousands)	101700	112088	116408	78095
Industrial Buildings	9440	10283	17551	4554
Office, Bank and Other Professional Buildings	33313	34329	40846	27270
Stores and Other Merchantile Buildings	13364	10884	14952	5163
Other	41983	56592	43059	41108
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December, 1977 = 100)	-	164.1	-	159.0[a]
South/Population more than 1,250,000	-	163.3	-	158.1[a]
South/Population 385,000 to 1,250,000	-	164.9	-	159.6[a]
South/Population 75,000 to 385,000	-	163.5	-	159.1[a]
South/Population 2,500 to 75,000	-	165.1	-	159.8[a]
Atlanta (1967=100)	-	304.4	-	297.8[a]
Prices Received by Farmers, Georgia Index[7] (1977=100)	136	130	134[r]	119
	1983:II	1983:I	1982:IV	1982:II
Total Personal Income[8] ($ millions)	58169	56546	55798	53506

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[1] Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2] Labor Information Systems, Georgia Department of Labor

[3] Series published by The Conference Board, Inc.

[4] Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue

[5] U.S. Department of Commerce, Bureau of the Census

[6] U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office

[7] Georgia Department of Agriculture, Georgia Crop Reporting Service

[8] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

[a] October, 1982

[r] Revised

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Economic Outlook: First Quarter 1984

Phillip A. Cartwright

THE NATIONAL OUTLOOK

It appears likely that the recovery will continue through 1984 despite concern over the possibility that a slowdown in the growth rate of the money supply and high interest rates will dampen economic activity and stall the cyclical upturn. On balance, the recent indicators show that the economy is still forging ahead.

Period and Indicator	
First quarter '84 Real GNP (annual rate)	7.2 percent
February '84 Unemployment rate	7.7 percent
February '84 Number of jobs vs. Year ago	4.7 million
February '84 Retail sales vs. Year ago	16.2 percent
February '84 Consumer price index	4.6 percent
February '84 Producer price index	4.7 percent

The sharp increase in general economic activity witnessed during 1983 was supported in large part by the rebound in consumer spending, a boom in residential construction, and inventory adjustments. The December retail sales figures surprised many economists by rising only 0.9 percent on the seasonally adjusted basis. However, the anemic increase is due to some special factors. Specifically, Christmas Eve and New Year's Eve fell on Saturday so many retailers closed early on what normally are strong sales days. In addition, Thanksgiving came earlier so some retail sales were made in November that otherwise would have been part of the December total. Still, the month-over-month figures should not obscure the improvement over last year.

In general, the data continue to point to strong consumer buying although the overall pace of spending is likely to moderate somewhat owing to a slowdown in demand for consumer durable goods. Barring any upturn in interest rates, we anticipate continuing support from construction, particularly in single-family units. Relative to 1983, we expect inventory investment to slow down.

On the inflation front, the slowing of prices at the wholesale and retail levels in 1983 has come as welcome news. However, the slowdown in the inflation rate has been due in large part to the depth of the recession, and the stability of food and oil prices. The best news relating to inflation is past. However, given a favorable outlook for productivity increases and stable oil prices, it seems doubtful that an acceleration in the rate of inflation threatens the overall health of the economy over the next several months. Measured in the broadest terms, the GNP deflator is expected to increase 4.5 to 5 percent. A similar increase is expected for consumer prices.

The short-term forecast points toward:

Indicator	Forecast
Real Gross National Product	5.0 - 5.3 percent
Real personal consumption expenditures	4.3 - 4.6 percent
Real gross private domestic investment	14.5 - 15.0 percent
Real government purchases	3.0 - 3.5 percent

Housing starts are expected to increase moderately over 1983, approaching 1.80 to 1.85 million units. New car sales should reach 10.1 to 10.3 million units of which about 25 percent will be sales of imported cars.

The weakest sector of the economy is and will be trade. Real net exports are expected to drop from $13 billion in 1983 to −$1 billion in 1984. The drop may be more dramatic depending on the relative strength of the dollar in international currency markets, the implementation of protectionist policies and the overall strength of the U.S. economy relative to the economies of our major trading partners. With the realization that the federal budget deficit is going to approach $200 billion, interest rates are not likely to decline and this will impede a significant depreciation in the dollar. Without a major adjustment of the dollar relative to currencies of major U.S. trading partners, the U.S. export market will not recover. Moreover, the country's economic growth will stimulate demand for imports, thus increasing the trade deficit.

Most of the improvement in unemployment has been realized and we expect the unemployment rate in 1984 will hover near 7.5 percent. The strongest growth will be in manufacturing employment, however, moderate gains will be posted in other sectors. The softest sector in employment growth will be government.

THE REGIONAL OUTLOOK

The outlook for the Southeast—North and South Carolina, Florida, Georgia, Alabama, Mississippi, and Tennessee—is good. However, considerable variation in performance is expected between states. The underlying cause for the differences is the contrasts in the industrial composition of the southeastern states. On the whole, unemployment growth in the region is expected to rise at rates above the U.S. average. Though the strongest economic performances in the region will be posted by Florida and Georgia, the economies of North and South Carolina also are expected to do exceptionally well in 1984. At this point, it appears that personal income growth in Alabama, Mississippi, and Tennessee will lag slightly behind that of the other states.

THE GEORGIA OUTLOOK

The factors that have dampened economic activity at the national level over the past few years have been responsible for slower economic growth in Georgia. To the extent that economic conditions remain favorable for growth at the national level, Georgia's economy will continue to grow in 1984.

As measured by growth in personal income, economic activity should advance about 10.5 percent, or 4.5 percent in real terms, which is slightly above the 4 percent rate of growth anticipated for the national economy. This translates into an increase in retail sales of about 10 percent. Total revenues are forecast to increase by about 11 percent.

While the total gain in establishment employment will be about 3.7 to 4 percent, somewhat above the figure expected for the national average, the employment outlook for the manufacturing sector is particularly bright. The overall performance of durable and nondurable goods industries is expected to be strong in 1984. The rise in manufacturing employment will be supported by growth in the textiles and apparel sector. Employment in the construction; trade; finance, insurance, and real estate; and services sectors is expected to increase between 3.5 to 4.5 percent, while growth in the transportation/public utilities and government sectors is expected to be somewhat lower.

The outlook for Georgia's agricultural sector is slightly improved from the forecasts generated last summer, but overall performance is expected to be fair. At the close of 1983, higher U.S. commodity prices reflected lower supplies. Some improvement in farm income is anticipated in 1984. In the absence of payments-in-kind programs for commodities other than wheat, supplies will increase and prices will fall late in 1984.

SUMMARY

In all, the short-term economic outlook for the nation, state, and region is good. As the year matures, concern over projected federal budget deficits will intensify and policy actions are likely to be taken in 1985, although the precise nature of the actions and their impact on general economic activity is unclear at this point. As a result, the outlook for 1985 is not yet focused.

For more details, the *1984 Georgia Economic Outlook* may be purchased for $5 from the Georgia Economic Forecasting Project, Division of Research, College of Business Administration, Brooks Hall, The University of Georgia, Athens, Georgia 30602.

The Economic Effect of Georgia's Dislocated Workers

Joyce Morris

Despite the easing of the overall unemployment rate, many people remain with little hope of returning to their former occupations. Structural changes in the economy, caused by technological changes, shifts in consumer demand, and the inability of some domestic industries to compete successfully with foreign interests, have displaced a sizeable segment of the American workforce. Although their number is the subject of considerable disagreement, a great deal is known about their characteristics and their social and economic problems.

SCOPE OF THE PROBLEM

The exact number of what is currently being termed dislocated workers is unknown, but national estimates range from 100,000 to more than 2 million. This considerable disparity results partly from the paucity of reliable data on which to base a count, but more on the definition used to describe them. Under the strictest definition—that is, counting only workers who are displaced from declining industries and who remain unemployed for more than six months—the lower figure is more accurate. Most are blue-collar workers from the industrial areas of the Midwest and Northeast. Under a more liberal definition which includes all unemployed workers in declining geographic areas, the number rises to around 2 million, only about half of whom are blue-collar workers. When the latter definition is used, managerial, sales, and clerical workers are much more strongly represented. Added to the difficulty of quantifying dislocated workers is the recession of the past few years. No one has yet found a foolproof way of separating the temporary effects of recessionary trends from true structural changes in the economy.

Although it is impossible to count dislocated workers in Georgia at this time because of gaps in some data bases and overlaps in others, available information indicates that Georgia has less of a problem than the nation as a whole. According to the Bureau of Labor Statistics, Georgia averaged 26,000 long-term unemployed persons per month during 1982. This figure was 12.5 percent of the total unemployed, up considerably from the 7.6 percent recorded in 1979. Expressed differently, Georgia's long-term unemployment rate (long-term unemployed as a percentage of the civilian labor force) was 1 percent. In the Southeast, only Florida has a lower rate. The national rate was 1.6 percent.

Despite their relatively small representation in the total labor force, the problem of dislocated workers is not a minor one for either society as a whole or for the workers themselves. Particularly in rural areas where job opportunities are limited, a plant closing may be devastating to the local community. The effects of the lost payroll may reach well beyond those directly affected, causing economic decline in local businesses and secondary layoffs in some of them.

DISLOCATED WORKER PROFILE

Who is the dislocated worker? In Georgia, this person is more likely to be male than female, more likely to be white than black. He probably has worked in an industry such as textiles, apparel, transportation equipment, or lumbering. Because these are often located in rural areas (except transportation equipment, most of which is located in urban areas), he is likely to be a resident of a small town. Although there is little information relating to either age or job tenure, interviews with workers in soon-to-be-closed plants indicate that many are middle-aged or older people who have worked for the same employer all or most of their working lives.

Although white males predominate in the dislocated worker pool from the standpoint of numbers, women and blacks are well represented. An estimated 0.8 percent of Georgia's women in the labor force were unemployed for 26 or more weeks in 1982, and 2 percent of blacks (both male and female) were classed as long-term unemployed. The rates for both women

and blacks in the state were well under the comparable rates for the nation and the Southeast.

Displaced workers often face problems far greater than the obvious disadvantages of reduced income and loss of fringe benefits. When unemployment is caused by cyclical changes in the economy, it is often temporary, and workers with seniority are protected from layoffs by either labor contract or custom. During periods of structural change, however, it is the longer tenured workers who are at the greatest disadvantage, according to a recent study by the Congressional Budget Office. Because they are usually older than their co-workers with less seniority, and because many are only semi-skilled, their previous job experience may not be readily transferable to another industry or occupation.

Because earnings tend to rise with length of time on the job and promotions are often predicated largely on seniority, dislocated workers may reenter the labor market with unrealistic expectations regarding wages and status. They also may find a reduction in fringe benefits such as pensions, vacations, and profit-sharing. Often, workers with long job tenure have little information about the current labor market, and consequently experience great difficulty in finding new jobs. For a variety of reasons, older workers are often less able to relocate to other geographic areas where job opportunities are more plentiful. They may own homes which would be costly to sell and replace elsewhere. They may have working spouses, children in school, or other strong family and community ties. As they are often blue-collar, they are much less likely to have their new employer's assistance with moving expenses. Although they may have excellent work histories, older workers often find employers unwilling to hire them because of their age.

The previously cited study by the Congressional Budget Office found that displaced workers' lives were usually seriously disrupted by their joblessness. One survey found two-thirds of them still unemployed a year after being laid off. On the average, their wages dropped by 17 percent when they were reemployed. The length of unemployment was directly related to age and skill level. For example, it was found that the proportion of workers over age 55 who were jobless for a year or longer was almost double the proportion of workers under 35 who were unemployed for a comparable length of time. It was also found that, on average, the period of unemployment for skilled workers was three and a half to six months less than for their semi-skilled or unskilled counterparts.

So, what is being done to alleviate this situation? What role does the government play in the problem of dislocated workers? These questions will be addressed next as attention is turned to a search for solutions.

POTENTIAL SOLUTIONS

One school of thought views worker displacement as a temporary by-product of the evolution of a free market. Proponents of this view believe that the market will correct itself in time and eventually provide new jobs in other industries for those who have lost their positions as a result of structural changes in the economy. They believe that government should not provide special assistance to these workers.

On the other hand, proponents of aid to dislocated workers argue that the price of allowing market forces free rein is too high in both economic and human terms. They cite the special problems faced by the displaced, including tangible ones such as lack of saleable skills in a changing marketplace and intangible ones like the loss of self-esteem so often suffered by the jobless. Some insist that a measure of government intervention is essential because the unemployed are an economic drain that society cannot afford, in terms of both lost productivity and an increased demand on social services.

Trade Adjustment Assistance (TAA) was one attempt to deal with the problem on a limited scale. Initiated in 1982, the program was designed specifically to assist workers who lost jobs because of imports. Benefits were much more liberal than those provided under state unemployment insurance programs. In addition to allowances for job search and relocation expenses, weekly benefits (under the 1974 revisions in the Trade Act) were calculated on the lower of either the average manufacturing wage or 70 percent of the worker's own wage. Benefits could be paid for up to 78 weeks, three times the maximum duration of regular unemployment insurance benefits.

Although conceived as a method to provide financial assistance to workers during a period of retraining and adjustment to a changing labor market, the program actually has been more of an income maintenance. According to a Congressional Research Service study, less than 3 percent of recipients were referred to training, and only about the same percentage were placed in new jobs. Relatively few Trade Readjustment Allowances (TRA) applicants even applied for employment services or received counseling.

During the years following the inception of the program, eligibility requirements became more liberal, and program costs grew accordingly. Applications for TRA increased more than tenfold from 1976 to 1980, and cash outlays rose from $70 million to $1.7 billion. As concern about spiraling costs increased, so did questions regarding the program's effectiveness. Criticisms were leveled at provisions which allowed retroactive payments to laid-off workers, up to 75 percent of whom were already reemployed when they applied for benefits. Indeed, it became apparent that many beneficiaries of the program were victims of

short-term cyclical factors rather than structural economic changes. General Accounting Office studies found that almost three-fourths of those receiving TAA payments returned to their former jobs.

The Omnibus Reconciliation Act of 1981 included changes to contain costs and emphasize the program's original intent. Cash benefits were limited to each state's maximum unemployment insurance level and could be paid only after unemployment insurance benefits were exhausted. The combined duration of UI and TAA could not exceed 52 weeks. The state's secretary of labor could require that TAA recipients in areas of high unemployment enroll in a training program or look for a job in another area. The Congressional Budget Office estimates that these changes resulted in savings of over $1 billion in fiscal year 1982.

In the Job Training Partnership Act of 1982, Congress again addressed the special needs of dislocated workers. Title III of the act deals specifically with employment and training assistance for them. Eligibility standards for program participation are broad. For instance, anyone who has been terminated, laid off, notified of pending termination, or who is eligible for or has exhausted unemployment insurance benefits and is unlikely to return to work in a previous occupation can be included. Also included are those who have lost jobs because of the permanent closing of a facility, the long-term jobless who have limited employment opportunities within their area of residence, and older workers whose age may represent a substantial barrier to employment.

States may provide a wide variety of services to displaced workers. Funds may be allocated for training, retraining, job search assistance, placement, relocation assistance, and other aid to those who are affected by mass layoffs, natural disasters, government actions such as relocation of federal facilities, or who reside in areas of high unemployment or designated enterprise zones. The job training act also says that states are not limited to specifically authorized services.

PROGRAMS IN GEORGIA

Georgia's Title III allocation for the period October 1, 1983 through June 30, 1984, is slightly over $1.3 million, plus $300,000 from the secretary of labor's discretionary funds. The statutory allocation of funds is based on a formula which compares the number of unemployed persons in each state with the number of unemployed nationwide, with special emphasis on the long-term unemployed. Because Georgia's unemployment problem has not been as severe relative to the nation as a whole, the state's Title III allocation is smaller than that of many other states.

Administered by the Department of Community Affairs, Georgia's dislocated worker program utilizes several approaches, including on-the-job training and classroom training. Other support services such as transportation, child care, and medical assistance may be provided to enrollees who could not otherwise participate in the program.

Because the severity of the problem varies considerably from one part of the state to another, it was decided that Georgia's appropriation would be used to fund individual projects where they are needed rather than distributing it equitably to the sixteen service delivery areas. Private industry councils are responsible for developing and proposing projects in their areas. So far, two projects have been funded with a total allocation of approximately $600,000 and others are in various stages of planning.

Recently, Cannon Mills closed its Social Circle Cotton Mill in Walton county, leaving 220 persons, many of them long-term employees, jobless. Nearby Elberton Mills also closed, laying off about 30 workers. However, through the cooperative efforts of the Northeast Georgia Private Industry Council, the Walton County Chamber of Commerce, local government officials, and private sector employers, a program was developed which is expected to benefit both jobless workers and local employers. Nine employers pledged more than 120 jobs to be filled by laid-off workers, most of whom will participate in on-the-job training. Under this concept, workers are hired and trained by their new employers. In turn, employers are reimbursed up to 50 percent of the cost of the employees' wages to partially defray the cost of training new employees. Those who wish to train for jobs not suitable for on-the-job training may be individually referred to area vocational schools for special training.

A second program has been funded to assist dislocated workers in Cobb, Douglas, Fulton, Gwinnett, and Rockdale counties. The closing of a Coats and Clark Plant and one Xerox facility, resulting in the layoff of some 400 employees, led to the development of this retraining program. Available information indicates, however, that many others in the five-county area have lost their jobs under conditions that make them eligible to participate in dislocated worker programs.

Joyce Morris is the principal statistical analyst in the Labor Information Systems division of the Georgia Department of Labor.

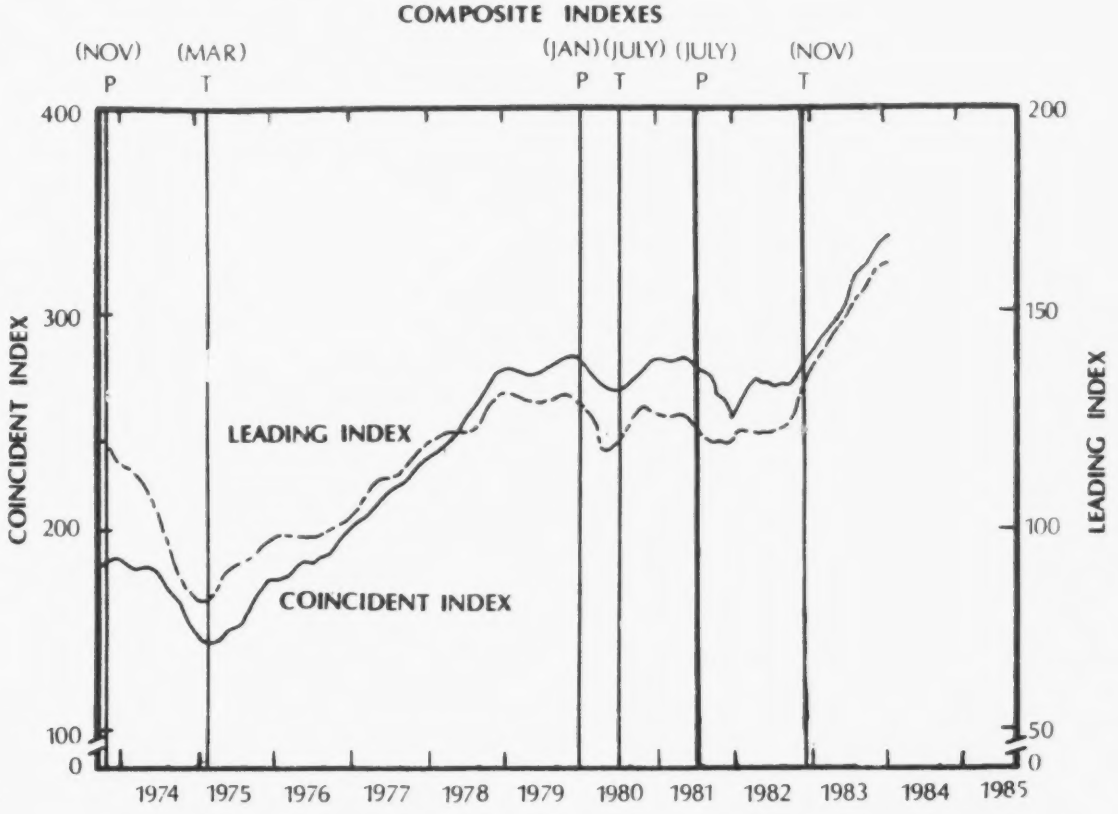
Composite Indexes of Leading and Coincident Georgia Economic Indicators

The leading and coincident indicators continued to reflect the economy's strength. In December, the index of coincident indicators rose 2.6 percent, largely due to a robust 2.1 percent advance in seasonally adjusted real average weekly earnings in manufacturing. Real retail sales posted an 0.8 percent gain, and nonagricultural employment rose 0.3 percent after seasonal adjustment.

The index of leading indicators climbed 1.8 percent due to the healthy performance of the Georgia labor market. Despite a 32.6 percent drop in new housing permits in December, the numbers for initial unemployment claims and the Conference Board's Index of Help Wanted Advertisements, Atlanta were sufficient to boost the composite index.

Both indexes posted moderate gains in January, confirming earlier statements that 1984 would be good for the state's economy. The coincident index rose 0.8 percent, with the month-over-month increase due to a 0.6 percent seasonally adjusted change in nonagricultural employment. Though post-holiday real retail sales slid 4.3 percent and real average weekly earnings dropped 0.9 percent, neither decline was cause for alarm.

Meanwhile, the index of leading indicators jumped 1.8 percent from December. Although initial unemployment claims rose 1.5 percent in January, the extent to which this dampened the indicators' performance was offset by gains in new housing permits and the Conference Board's Index of Help Wanted Advertisements, Atlanta, which amounted to 6.4 and 8.9 percent, respectively.



Note: P (peak) indicates the end of general business expansion at the national level and the beginning of recession;
T (trough) indicates the end of general business recession at the national level and the beginning of expansion.

GEORGIA BUSINESS STATISTICS

SERIES	JAN 1984	DEC 1983	NOV 1983	JAN 1983
Georgia Leading Indicators Index[1] (1969=100)	166.12	163.19	160.88	135.48
Georgia Coincident Indicators Index[1] (1969=100)	343.45	340.87	334.83	280.85
Nonagricultural Employment[2] (thousands)	2308.8	2341.3	2287.5	2195.8
Manufacturing Employment[2] (thousands)	521.6	522.0	515.0	489.3
Average Weekly Earnings, Manufacturing[2] (dollars)	306.12	311.75	301.38	272.74
Help Wanted Advertising, Atlanta Index[3] (1967=100)	270	248	229	147
Taxable Retail Sales[4] ($ millions)	2324.0	3308.2	2662.0	2094.2
Building Permits[5]				
Residential Housing Units, Private (thousands)	4.7	4.5	5.3	4.7
Value of Residential Housing ($ thousands)	185510	150762	197015	155153
Value of Nonresidential Construction ($ thousands)	105190	131994	101700	62321
Industrial Buildings	18212	8219	9440	6084
Office, Bank and Other Professional Buildings	30984	72575	36913	10994
Stores and Other Mercantile Buildings	10791	12897	13364	7345
Other	45203	38303	41983	37898
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December, 1977 = 100)	-	164.3	-	158.6[a]
South/Population more than 1,250,000	-	163.5	-	157.5[a]
South/Population 385,000 to 1,250,000	-	164.9	-	159.3[a]
South/Population 75,000 to 385,000	-	163.7	-	158.8[a]
South/Population 2,500 to 75,000	-	165.7	-	159.1[a]
Atlanta (1967=100)	-	307.3	-	296.1[a]
Prices Received by Farmers, Georgia Index[7] (1977=100)	146	139[r]	136	121
	1983:III	1983:II	1983:I	1982:III
Total Personal Income[8] ($ millions)	59292	58169	56546	54362

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[1]Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2]Labor Information Systems, Georgia Department of Labor

[3]Series published by The Conference Board, Inc.

[4]Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue

[5]U.S. Department of Commerce, Bureau of the Census

[6]U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office

[7]Georgia Department of Agriculture, Georgia Crop Reporting Service

[8]U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

[a]December, 1982

[r]Revised

TOTAL PERSONAL INCOME ESTIMATES BY SMSA AND COUNTY
(RESIDENCE ADJUSTED, $ MIL.)

	1970	1980	1981
SMSA			
Albany	276.7	827.2	934.3
Athens	301.1	906.5	1022.7
Atlanta	6691.2	20334.3	22928.3
Augusta	805.6	2302.4	2771.7
SUM OF SMSA COUNTIES	10273.1	24731.3	33390.4
COUNTY			
Appling	28.7	91.1	111.1
Atkinson	11.8	40.2	49.3
Bacon	20.8	53.0	61.7
Baker	7.4	16.7	23.2
Baldwin	73.0	233.7	272.5
Banks	15.1	44.8	47.5
Barrow	49.8	134.8	174.5
Bartow	99.1	247.6	337.3
Ben Hill	34.8	100.3	116.7
Berrien	31.1	81.4	91.8
Bibb	511.6	1303.8	1436.7
Bleckley	26.1	64.3	73.4
Brantley	14.3	39.6	43.9
Brooks	33.0	75.6	96.8
Bryan	14.4	53.6	56.7
Bulloch	71.3	223.7	267.0
Burke	36.0	107.4	140.0
Butts	26.7	83.3	91.5
Calhoun	13.3	35.5	48.1
Camden	40.1	113.1	129.9
Candler	17.1	43.8	52.7
Carroll	124.6	391.2	439.8
Catoosa	68.8	202.6	223.5
Charlton	12.5	38.7	43.0
Chatham	645.9	1702.7	1920.6
Chattahoochee	92.0	160.0	164.2
Chattooga	53.5	132.0	137.9
Cherokee	81.2	305.4	342.3
Clarke	160.1	568.4	641.0
Clay	6.6	14.6	18.9
Clayton	966.0	1408.0	1593.2
Clinch	14.4	39.3	44.0
Cobb	789.6	2768.3	3184.1
Coffee	68.5	146.2	172.7
Colquitt	88.6	217.6	251.3
Columbia	58.1	260.2	288.8
Cook	42.1	73.4	84.9
Coweta	100.1	310.3	352.1
Crawford	12.3	33.4	36.6
Crisp	44.8	119.7	139.0
Dade	23.6	68.3	77.8
Dawson	8.8	33.0	37.2
Decatur	51.2	158.9	192.4
DeKalb	1963.2	5717.5	6389.8
Dodge	39.2	97.7	111.2
Dooly	27.5	67.4	83.2
Dougherty	262.0	776.8	867.3
Douglas	91.1	405.5	463.4
Early	29.1	73.8	91.3
Echols	4.2	12.0	13.5
Effingham	39.2	118.2	142.4
Elbert	47.2	134.8	148.9
Emanuel	42.3	113.2	136.3
Evans	18.4	50.4	59.4
Fannin	29.1	83.4	88.9
Fayette	46.4	249.8	291.7
Floyd	248.1	642.0	703.8
Forsyth	47.0	180.5	211.3
Franklin	33.2	93.2	103.9
Fulton	2720.2	6691.5	7435.5
Gilmer	22.3	69.7	81.8
Glascock	6.2	16.1	18.9
Glynn	169.0	488.5	542.5
Gordon	79.7	205.3	230.7
Grady	41.1	113.2	130.8
Greene	20.9	67.2	72.4
Gwinnett	243.3	1347.8	1568.8
Habersham	49.8	138.6	175.1
Hall	190.3	621.4	704.0
Hancock	16.8	46.6	52.8
Haralson	51.3	132.3	146.4
Harris	29.1	88.5	96.6
Hart	46.7	114.3	128.2
Heard	12.2	45.0	51.3
Henry	99.9	273.2	309.4
Houston	233.8	587.8	663.1
Irwin	20.9	43.2	58.1
Jackson	57.2	164.2	181.6
Jasper	16.0	52.6	58.7
Jeff Davis	25.1	78.4	92.6

	1970	1980	1981
SMSA			
Columbus	753.0	1756.4	1937.1
Macon	788.3	2021.3	2271.7
Savannah	699.6	1874.5	2119.6
SUM OF NON-SMSA COUNTIES	5029.9	14355.8	16412.3
COUNTY			
Jefferson	39.4	105.6	123.7
Jenkins	17.5	46.2	54.9
Johnson	16.6	46.8	52.3
Jones	27.6	87.8	100.7
Lamar	26.7	71.9	76.1
Lanier	11.9	28.4	34.3
Laurens	85.8	243.2	280.0
Lee	16.7	50.4	67.1
Liberty	44.8	267.6	281.9
Lincoln	12.1	38.7	41.7
Long	8.1	25.3	28.8
Lowndes	172.0	453.1	511.1
Lumpkin	18.2	57.5	68.2
Macon	28.7	84.2	84.8
Madison	34.6	104.1	118.0
Marion	11.0	27.6	32.6
McDuffie	40.8	122.9	140.6
McIntosh	12.9	41.1	45.5
Meriwether	48.2	121.6	138.4
Miller	15.1	33.9	48.5
Mitchell	47.0	116.7	144.7
Monroe	29.7	102.1	117.2
Montogmery	14.4	38.4	43.7
Morgan	26.5	84.4	98.9
Murray	32.2	125.9	141.1
Muscogee	551.8	1297.6	1437.7
Newton	77.9	258.1	291.7
Oconee	21.1	71.8	82.1
Oglethorpe	25.4	46.3	52.6
Paulding	43.8	163.9	189.2
Peach	45.2	148.4	166.0
Pickens	25.7	77.3	88.1
Pierce	29.6	60.1	71.2
Pike	18.6	54.8	64.0
Polk	79.9	220.9	241.2
Pulaski	24.4	51.9	61.4
Putnam	21.8	78.2	87.3
Quitman	3.2	8.9	10.4
Rabun	19.1	58.1	63.8
Randolph	18.9	44.4	56.4
Richmond	554.3	1363.4	1496.1
Rockdale	57.4	287.2	329.4
Schley	8.9	20.2	24.8
Screven	27.6	77.1	92.6
Seminole	18.3	52.4	66.0
Spalding	123.6	371.2	417.8
Stephens	54.3	148.6	162.6
Stewart	12.5	29.1	34.4
Sumter	73.8	191.8	226.8
Talbot	11.9	30.8	34.1
Taliaferro	3.2	11.4	14.3
Tattnall	34.2	93.0	113.6
Taylor	18.5	48.4	56.0
Telfair	26.3	74.7	87.9
Terrell	26.7	61.6	77.1
Thomas	99.9	261.2	304.5
Tift	71.4	216.8	248.3
Toombs	47.2	133.4	155.4
Towns	8.8	29.1	33.4
Treutlen	10.5	33.4	34.6
Troup	134.5	371.9	419.5
Turner	22.6	57.7	73.7
Twiggs	15.4	41.9	47.1
Union	12.8	40.3	47.6
Upson	67.9	170.1	190.7
Walker	161.6	395.3	425.7
Walton	84.9	213.6	236.9
Ware	103.2	266.4	296.8
Warren	14.0	38.7	44.1
Washington	44.0	123.6	140.7
Wayne	48.0	138.0	165.0
Webster	4.6	11.0	15.1
Wheeler	10.3	24.0	29.0
White	16.7	52.3	62.7
Whitfield	188.2	532.8	584.6
Wilcox	17.1	38.2	47.9
Wilkes	26.2	73.9	84.9
Wilkinson	22.2	68.7	76.1
Worth	34.0	93.9	117.9
Total	15303.0	44087.1	49802.7

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (April, 1983).

PER CAPITA PERSONAL INCOME ESTIMATES BY SMSA AND COUNTY
(RESIDENCE ADJUSTED, $)

	1970	1980	1981	% OF 1981 U.S. AVG.	RANK IN STATE 1981
SMSA					
Albany	2863	7315	8088	77	2?5
Athens	2748	6940	7847	75	288
Atlanta	4107	9926	10972	105	1
Augusta	3303	7608	8346	80	252
SUM OF SMSA COUNTIES	3788	9035	9949	95	-
COUNTY					
Appling	2315	5862	7149	70	341
Atkinson	2017	4923	6307	60	117
Bacon	2507	5656	6727	64	95
Baker	1930	4413	6723	64	99
Baldwin	2188	6122	767	73	49
Banks	2211	5121	6136	59	350
Barrow	2932	7231	8310	79	19
Bartow	2459	7276	8184	78	26
Ben Hill	2580	6233	7154	68	72
Berrien	2679	6034	6781	65	86
Bibb	3364	8044	9047	92	6
Bleckley	2526	5988	6821	65	93
Brantley	2433	4463	5004	48	334
Brooks	2538	6415	6373	61	123
Bryan	2194	5195	5916	57	340
Bulloch	2250	6624	7193	68	73
Burke	1970	5362	7045	68	76
Butts	2519	6093	6570	63	104
Calhoun	2032	6269	8333	81	17
Camden	2618	5776	6954	66	89
Candler	2713	5815	6888	66	87
Carroll	2719	6432	7224	74	46
Catoosa	2450	5434	6863	66	138
Charlton	2192	5292	5926	56	326
Chatham	3406	8417	9334	89	4
Chattahoochee	3720	7404	6819	65	94
Chattooga	2585	6092	6237	59	321
Cherokee	2591	5820	6807	60	118
Clarke	2903	7571	8881	85	12
Clay	1828	4105	6067	58	330
Clayton	3691	9318	10461	100	3
Clinch	2239	5888	6643	63	102
Cobb	3978	9216	10057	96	5
Coffee	2551	5415	6364	61	113
Colquitt	2738	6134	7014	67	79
Columbia	2585	6383	6933	66	85
Cook	2637	5428	6267	60	119
Coweta	3069	7859	8648	82	16
Crawford	2169	4816	5607	54	347
Crisp	2479	6149	7137	68	74
Dade	2343	5537	6119	58	329
Dawson	2407	6851	6971	66	84
Decatur	2284	6215	7421	71	56
DeKalb	4690	11572	13128	125	1
Dodge	2488	5775	6527	63	91
Dooly	2614	6243	7341	70	57
Dougherty	2903	7669	8354	80	20
Douglas	3115	7368	8124	77	31
Early	2291	5602	6783	65	90
Echols	2174	5197	6019	57	332
Effingham	2853	6408	7727	74	43
Elbert	2740	7172	7727	74	44
Emanuel	2306	5448	6416	61	111
Evans	2468	5983	7027	67	78
Fannin	2163	5658	5980	57	333
Fayette	3508	8387	9339	89	5
Floyd	3352	8063	8700	83	13
Forsyth	2716	6371	7227	69	65
Franklin	2591	6135	6978	66	82
Fulton	4492	11302	12337	118	2
Gilmer	2426	6259	7410	71	39
Glascock	2726	6691	7355	70	62
Glynn	3333	8558	9644	92	7
Gordon	2471	6811	7778	74	42
Grady	2308	5660	6584	61	112
Greene	2058	5908	6373	61	114
Gwinnett	3338	7939	8960	85	11
Habersham	2398	6356	6731	64	97
Hall	3177	8178	9087	87	9
Hancock	1855	4934	5604	53	346
Haralson	3197	7173	7713	73	47
Harris	2530	5701	6251	60	123
Hart	2568	6143	6824	65	92
Heard	2264	6855	7741	74	41
Henry	2920	7425	8244	79	24
Houston	3683	7548	8488	81	19
Irwin	2570	4813	6712	64	100
Jackson	2694	6467	7135	68	75
Jasper	2770	7022	6839	65	90
Jeff Davis	2635	6847	8097	77	32
SMSA					
Columbus	3163	7333	7939	76	281
Macon	3461	7436	8836	84	240
Savannah	3384	8113	9048	86	227
SUM OF NON-SMSA COUNTIES	2637	6331	7432	71	-
COUNTY					
Jefferson	2308	5719	6530	62	335
Jenkins	2203	5245	6492	61	109
Johnson	2151	5401	6101	58	126
Jones	2141	5272	5702	54	345
Lamar	2681	6863	6228	59	122
Lanier	2306	4998	5927	56	335
Laurens	2616	6630	7480	71	54
Lee	2358	4274	5334	51	348
Liberty	2548	7033	7289	69	66
Lincoln	2033	5362	6077	58	129
Long	2188	5147	5595	53	347
Lowndes	3094	6617	7498	71	55
Lumpkin	2073	5302	6130	59	124
Macon	2212	5986	6626	63	103
Madison	2536	5820	6350	61	116
Marion	2143	5248	6853	66	156
McDuffie	2677	6586	7549	72	53
McIntosh	2740	6100	6014	57	131
Meriwether	2462	5737	6456	62	108
Miller	2362	4797	6084	67	81
Mitchell	2480	5301	6863	65	88
Monroe	2665	6951	7704	73	48
Montgomery	2376	530	6217	59	123
Morgan	2664	7250	8362	79	23
Murray	2436	6355	7027	67	77
Muscogee	3256	7634	8312	79	25
Newton	2947	7476	8321	78	27
Oconee	2664	5720	7804	93	142
Oglethorpe	2149	5177	5901	56	338
Paulding	2392	6246	6843	65	89
Peach	2787	7736	8519	81	18
Pickens	2862	6608	7314	70	64
Pierce	2749	5040	5833	55	343
Pike	2524	6096	6972	66	83
Polk	2684	6820	7274	69	67
Pulaski	3316	5788	7182	68	69
Putnam	2536	5962	6168	78	29
Quitman	1332	3769	4586	44	350
Rabun	2262	5502	5856	56	340
Randolph	2270	4635	5846	56	341
Richmond	3628	7479	8168	78	30
Rockdale	3154	7726	8353	80	21
Schley	2619	5837	8015	76	33
Screven	2184	5472	6468	62	107
Seminole	2932	5764	7414	71	58
Spalding	3115	7269	8718	83	14
Stephens	2661	6829	7291	69	65
Stewart	1937	4951	5922	56	337
Sumter	2728	6514	7736	74	45
Talbot	1989	4739	5330	51	353
Taliaferro	2151	5644	7186	68	70
Tattnall	2065	5265	6089	58	127
Taylor	2370	6143	7002	67	80
Telfair	2278	6343	7919	75	36
Terrell	2305	5132	6433	61	110
Thomas	2877	6913	7993	76	34
Tift	2597	6590	7308	70	61
Toombs	2473	5913	6893	66	86
Towns	1897	4116	5329	53	349
Treutlen	1963	5003	5742	55	344
Troup	3328	7433	8253	79	27
Turner	2584	6357	7886	75	38
Twiggs	1888	4482	4933	47	159
Union	1867	4253	4934	47	355
Upson	2889	6341	7167	68	71
Walker	3214	6948	7623	73	51
Walton	2736	6836	7421	71	57
Ware	3071	7177	7939	76	35
Warren	2074	5872	6660	63	101
Washington	2518	6660	7402	71	60
Wayne	2683	6628	7803	74	40
Webster	1961	4692	5133	50	352
Wheeler	2274	4948	5176	51	351
White	2191	5443	6081	58	128
Whitfield	3393	8095	8727	83	13
Wilcox	2444	4987	5973	57	336
Wilkes	2364	6736	7620	73	52
Wilkinson	2336	6711	7667	73	50
Worth	2584	5182	6493	62	106
Total	3323	8042	8935	85	-

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (April, 1983); SMSA and County PCPI rankings (1981), BEA, "County and Metropolitan Area Personal Income, 1979-81," Survey of Current Business (April, 1983).

ANNUAL DATA

TAXABLE SALES IN GEORGIA, BY INDUSTRY AND COUNTY
$000

INDUSTRY	TOTAL 1981	TOTAL 1982	TOTAL 1983	ANNUAL PERCENT CHANGE 1982-1983	INDUSTRY	TOTAL 1981	TOTAL 1982	TOTAL 1983	ANNUAL PERCENT CHANGE 1982-1983
Total	24,941,113	27,138,580	29,111,454	7.3	Total Retail	19,178,830	20,911,113	22,510,779	7.6
Agriculture	434,411	510,906	511,614	0.1					
Contract Construction	1,214,436	1,438,881	1,634,444	13.6	Building Materials	1,444,414	1,660,000	1,844,444	11.1
Manufacturing	1,240,111	1,411,111	1,444,111	2.4	General Merchandise	2,444,444	2,444,444	2,444,444	0.0
Transportation	444,444	444,444	444,444	0.0	Food	4,444,444	4,444,444	4,444,444	0.0
Communication	444,444	444,444	444,444	0.0	Automotive	3,444,444	3,444,444	3,444,444	0.0
Electric, Gas, Sanitary	1,444,444	1,444,444	1,444,444	0.0	Apparel	1,444,444	1,444,444	1,444,444	0.0
Wholesale Trade	4,444,444	4,444,444	4,444,444	0.0	Furniture	1,444,444	1,444,444	1,444,444	0.0
Finance, Insurance, Real Estate	444,444	444,444	444,444	0.0	Eating & Drinking	1,444,444	1,444,444	1,444,444	0.0
Services	444,444	444,444	444,444	0.0	Miscellaneous Retail	444,444	444,444	444,444	0.0
Government	444,444	444,444	444,444	0.0					
COUNTY					COUNTY				
Appling	44,444	44,444	44,444	0.0	Jackson	44,444	44,444	44,444	0.0
Atkinson	14,444	14,444	14,444	0.0	Jasper	14,444	14,444	14,444	0.0
Bacon	14,444	14,444	14,444	0.0	Jeff Davis	14,444	14,444	14,444	0.0
Baker	14,444	14,444	14,444	0.0	Jefferson	44,444	44,444	44,444	0.0
Baldwin	144,444	144,444	144,444	0.0	Jenkins	14,444	14,444	14,444	0.0
Banks	14,444	14,444	14,444	0.0	Johnson	14,444	14,444	14,444	0.0
Barrow	144,444	144,444	144,444	0.0	Jones	44,444	44,444	44,444	0.0
Bartow	144,444	144,444	144,444	0.0	Lamar	44,444	44,444	44,444	0.0
Ben Hill	44,444	44,444	44,444	0.0	Lanier	14,444	14,444	14,444	0.0
Berrien	44,444	44,444	44,444	0.0	Laurens	144,444	144,444	144,444	0.0
Bibb	1,444,444	1,444,444	1,444,444	0.0	Lee	44,444	44,444	44,444	0.0
Bleckley	44,444	44,444	44,444	0.0	Liberty	144,444	144,444	144,444	0.0
Brantley	14,444	14,444	14,444	0.0	Lincoln	14,444	14,444	14,444	0.0
Brooks	44,444	44,444	44,444	0.0	Long	14,444	14,444	14,444	0.0
Bryan	14,444	14,444	14,444	0.0	Lowndes	444,444	444,444	444,444	0.0
Bulloch	144,444	144,444	144,444	0.0	Lumpkin	44,444	44,444	44,444	0.0
Burke	44,444	44,444	44,444	0.0	McDuffie	44,444	44,444	44,444	0.0
Butts	44,444	44,444	44,444	0.0	McIntosh	14,444	14,444	14,444	0.0
Calhoun	14,444	14,444	14,444	0.0	Macon	44,444	44,444	44,444	0.0
Camden	144,444	144,444	144,444	0.0	Madison	44,444	44,444	44,444	0.0
Candler	14,444	14,444	14,444	0.0	Marion	14,444	14,444	14,444	0.0
Carroll	444,444	444,444	444,444	0.0	Meriwether	44,444	44,444	44,444	0.0
Catoosa	144,444	144,444	144,444	0.0	Miller	14,444	14,444	14,444	0.0
Charlton	14,444	14,444	14,444	0.0	Mitchell	44,444	44,444	44,444	0.0
Chatham	1,444,444	1,444,444	1,444,444	0.0	Monroe	44,444	44,444	44,444	0.0
Chattahoochee	14,444	14,444	14,444	0.0	Montgomery	14,444	14,444	14,444	0.0
Chattooga	44,444	44,444	44,444	0.0	Morgan	44,444	44,444	44,444	0.0
Cherokee	144,444	144,444	144,444	0.0	Murray	44,444	44,444	44,444	0.0
Clarke	444,444	444,444	444,444	0.0	Muscogee	1,444,444	1,444,444	1,444,444	0.0
Clay	14,444	14,444	14,444	0.0	Newton	144,444	144,444	144,444	0.0
Clayton	444,444	444,444	444,444	0.0	Oconee	14,444	14,444	14,444	0.0
Clinch	14,444	14,444	14,444	0.0	Oglethorpe	14,444	14,444	14,444	0.0
Cobb	1,444,444	1,444,444	1,444,444	0.0	Paulding	44,444	44,444	44,444	0.0
Coffee	144,444	144,444	144,444	0.0	Peach	44,444	44,444	44,444	0.0
Colquitt	144,444	144,444	144,444	0.0	Pickens	14,444	14,444	14,444	0.0
Columbia	144,444	144,444	144,444	0.0	Pierce	14,444	14,444	14,444	0.0
Cook	44,444	44,444	44,444	0.0	Pike	14,444	14,444	14,444	0.0
Coweta	144,444	144,444	144,444	0.0	Polk	44,444	44,444	44,444	0.0
Crawford	14,444	14,444	14,444	0.0	Pulaski	14,444	14,444	14,444	0.0
Crisp	44,444	44,444	44,444	0.0	Putnam	44,444	44,444	44,444	0.0
Dade	44,444	44,444	44,444	0.0	Quitman	14,444	14,444	14,444	0.0
Dawson	14,444	14,444	14,444	0.0	Rabun	44,444	44,444	44,444	0.0
Decatur	44,444	44,444	44,444	0.0	Randolph	14,444	14,444	14,444	0.0
DeKalb	1,444,444	1,444,444	1,444,444	0.0	Richmond	444,444	444,444	444,444	0.0
Dodge	44,444	44,444	44,444	0.0	Rockdale	44,444	44,444	44,444	0.0
Dooly	14,444	14,444	14,444	0.0	Schley	14,444	14,444	14,444	0.0
Dougherty	444,444	444,444	444,444	0.0	Screven	44,444	44,444	44,444	0.0
Douglas	44,444	44,444	44,444	0.0	Seminole	14,444	14,444	14,444	0.0
Early	14,444	14,444	14,444	0.0	Spalding	144,444	144,444	144,444	0.0
Echols	14,444	14,444	14,444	0.0	Stephens	44,444	44,444	44,444	0.0
Effingham	14,444	14,444	14,444	0.0	Stewart	14,444	14,444	14,444	0.0
Elbert	44,444	44,444	44,444	0.0	Sumter	144,444	144,444	144,444	0.0
Emanuel	44,444	44,444	44,444	0.0	Talbot	14,444	14,444	14,444	0.0
Evans	14,444	14,444	14,444	0.0	Taliaferro	14,444	14,444	14,444	0.0
Fannin	44,444	44,444	44,444	0.0	Tattnall	44,444	44,444	44,444	0.0
Fayette	144,444	144,444	144,444	0.0	Taylor	14,444	14,444	14,444	0.0
Floyd	444,444	444,444	444,444	0.0	Telfair	44,444	44,444	44,444	0.0
Forsyth	44,444	44,444	44,444	0.0	Terrell	44,444	44,444	44,444	0.0
Franklin	44,444	44,444	44,444	0.0	Thomas	144,444	144,444	144,444	0.0
Fulton	1,444,444	1,444,444	1,444,444	0.0	Tift	144,444	144,444	144,444	0.0
Gilmer	44,444	44,444	44,444	0.0	Toombs	144,444	144,444	144,444	0.0
Glascock	14,444	14,444	14,444	0.0	Towns	14,444	14,444	14,444	0.0
Glynn	144,444	144,444	144,444	0.0	Treutlen	14,444	14,444	14,444	0.0
Gordon	44,444	44,444	44,444	0.0	Troup	144,444	144,444	144,444	0.0
Grady	44,444	44,444	44,444	0.0	Turner	14,444	14,444	14,444	0.0
Greene	14,444	14,444	14,444	0.0	Twiggs	14,444	14,444	14,444	0.0
Gwinnett	444,444	444,444	444,444	0.0	Union	14,444	14,444	14,444	0.0
Habersham	44,444	44,444	44,444	0.0	Upson	44,444	44,444	44,444	0.0
Hall	144,444	144,444	144,444	0.0	Walker	44,444	44,444	44,444	0.0
Hancock	14,444	14,444	14,444	0.0	Walton	44,444	44,444	44,444	0.0
Haralson	44,444	44,444	44,444	0.0	Ware	44,444	44,444	44,444	0.0
Harris	44,444	44,444	44,444	0.0	Warren	14,444	14,444	14,444	0.0
Hart	44,444	44,444	44,444	0.0	Washington	44,444	44,444	44,444	0.0
Heard	14,444	14,444	14,444	0.0	Wayne	44,444	44,444	44,444	0.0
Henry	44,444	44,444	44,444	0.0	Webster	14,444	14,444	14,444	0.0
Houston	444,444	444,444	444,444	0.0	Wheeler	14,444	14,444	14,444	0.0
Irwin	14,444	14,444	14,444	0.0	White	44,444	44,444	44,444	0.0
Jackson	44,444	44,444	44,444	0.0	Whitfield	144,444	144,444	144,444	0.0
Jasper	14,444	14,444	14,444	0.0	Wilcox	14,444	14,444	14,444	0.0
Jeff Davis	14,444	14,444	14,444	0.0	Wilkes	14,444	14,444	14,444	0.0
					Wilkinson	14,444	14,444	14,444	0.0
					Worth	44,444	44,444	44,444	0.0
					Total	24,941,113	27,138,580	29,111,454	7.3

Source: Derived by the Division of Research, College of Business Administration, University of Georgia, from data of sales and use tax filings, Georgia Department of Revenue. Sales include the value of all taxable items, as reported by firms making a reporting form, plus penalties and interest collected. Data for 1981 and 1982 have been revised to include the value of motor fuel; revised data for 1979 and 1980 are available upon request.

RESIDENTIAL CONSTRUCTION AUTHORIZED, BY SELECTED CITIES AND COUNTIES

CITY AND COUNTY	UNITS (No.)		VALUE ($000)	
	TOTAL 1962	TOTAL 1963*	TOTAL 1962	TOTAL 1963*
CITIES				
[illegible]				
BALANCE OF COUNTIES				
[illegible]				

NONRESIDENTIAL CONSTRUCTION AUTHORIZED, BY SELECTED CITIES AND COUNTIES

CITY AND COUNTY	VALUE ($000)	
	TOTAL 1962*	TOTAL 1963*
CITIES		
[illegible]		
BALANCE OF COUNTIES		
[illegible]		

[illegible]

[illegible]

ESTIMATED UNEMPLOYMENT RATE, BY COUNTY
(UNADJUSTED)

COUNTY	AVERAGE 1982	AVERAGE 1983	COUNTY	AVERAGE 1982	AVERAGE 1983	COUNTY	AVERAGE 1982	AVERAGE 1983
Appling	6.8	8.8	Evans	8.4	8.9	Newton	8.3	7.7
Atkinson	9.7	11.5	Fannin	12.0	10.5	Oconee	5.8	6.1
Bacon	8.8	10.6	Fayette	5.8	5.1	Oglethorpe	10.2	9.9
Baker	8.3	8.1	Floyd	11.2	10.1	Paulding	7.8	9.5
Baldwin	6.1	6.2	Forsyth	6.3	5.7	Peach	6.0	6.9
Banks	6.1	6.8	Franklin	10.5	8.9	Pickens	9.1	7.5
Barrow	9.1	8.9	Fulton	7.5	7.2	Pierce	10.3	11.2
Bartow	11.3	10.4	Gilmer	9.7	8.7	Pike	8.1	9.0
Ben Hill	11.4	8.3	Glascock	12.1	9.3	Polk	15.2	12.4
Berrien	9.0	7.9	Glynn	7.4	8.2	Pulaski	7.3	7.4
Bibb	7.7	8.2	Gordon	11.1	9.1	Putnam	7.2	9.2
Bleckley	9.7	9.9	Grady	6.7	7.0	Quitman	10.9	7.9
Brantley	11.8	13.3	Greene	8.9	7.4	Rabun	9.1	8.0
Brooks	8.3	9.3	Gwinnett	5.6	5.8	Randolph	10.9	9.2
Bryan	6.0	6.8	Habersham	8.1	6.8	Richmond	7.3	8.3
Bulloch	5.0	6.1	Hall	9.2	8.9	Seminole	6.2	5.6
Burke	5.2	5.3	Hancock	6.8	5.6	Schley	5.4	8.3
Butts	10.3	10.3	Haralson	12.3	9.3	Screven	6.7	7.1
Calhoun	10.2	10.4	Harris	10.1	8.6	Seminole	8.8	7.9
Camden	5.2	5.4	Hart	9.9	8.4	Spalding	10.9	11.0
Candler	7.5	6.8	Heard	9.1	8.1	Stephens	9.3	7.6
Carroll	8.1	7.2	Henry	6.8	6.6	Stewart	12.1	10.1
Catoosa	8.2	7.4	Houston	5.4	4.6	Sumter	13.1	8.7
Charlton	8.1	8.0	Irwin	5.8	6.6	Talbot	12.1	9.1
Chatham	8.0	8.1	Jackson	7.1	7.8	Taliaferro	18.1	13.7
Chattahoochee	5.4	5.9	Jasper	7.4	7.8	Tattnall	5.4	6.0
Chattooga	11.8	10.8	Jeff Davis	6.6	7.9	Taylor	6.9	6.4
Cherokee	7.0	5.2	Jefferson	12.5	8.1	Telfair	7.7	8.1
Clarke	5.7	5.8	Jenkins	9.5	8.7	Terrell	9.4	12.2
Clay	7.0	6.8	Johnson	9.9	8.2	Thomas	7.6	8.0
Clayton	6.6	6.3	Jones	7.1	5.7	Tift	7.3	8.0
Clinch	10.6	8.9	Lamar	9.2	9.1	Toombs	7.3	8.1
Cobb	5.5	5.5	Lanier	6.4	8.1	Towns	7.8	7.2
Coffee	6.1	9.5	Laurens	5.8	8.0	Treutlen	8.0	7.6
Colquitt	8.0	8.1	Lee	5.1	8.0	Troup	8.4	7.9
Columbia	6.0	5.1	Liberty	5.4	7.1	Turner	8.7	11.6
Cook	8.2	9.1	Lincoln	14.1	13.3	Twiggs	7.8	7.8
Coweta	10.3	8.1	Long	5.3	6.6	Union	10.8	12.4
Crawford	12.0	10.9	Lowndes	5.1	5.8	Upson	12.6	8.5
Crisp	11.6	10.3	Lumpkin	8.0	6.7	Walker	9.1	8.3
Dade	8.7	7.3	McDuffie	18.2	14.5	Walton	7.7	7.1
Dawson	10.0	9.4	McIntosh	10.8	11.2	Ware	10.1	9.7
Decatur	8.7	8.1	Macon	11.6	11.2	Warren	16.2	10.2
Dekalb	5.6	5.8	Madison	8.6	8.3	Washington	7.0	7.1
Dodge	8.3	8.4	Marion	7.3	6.7	Wayne	6.6	11.1
Dooly	10.0	8.1	Meriwether	12.2	11.7	Webster	8.1	9.5
Dougherty	9.2	10.0	Miller	8.3	7.0	Wheeler	9.3	7.9
Douglas	6.2	5.8	Mitchell	9.0	10.7	White	10.9	8.5
Early	9.4	8.1	Monroe	7.4	5.0	Whitfield	11.1	7.8
Echols	8.4	7.1	Montgomery	8.6	7.4	Wilcox	11.0	10.2
Effingham	5.0	9.0	Morgan	8.2	5.5	Wilkes	10.4	8.9
Elbert	12.2	10.7	Murray	11.9	8.8	Wilkinson	8.2	9.2
Emanuel	9.7	9.8	Muscogee	8.1	7.6	Worth	11.0	12.1

Source: Georgia Department of Labor

NEW PASSENGER CAR REGISTRATIONS, BY SMSA AND SELECTED CITY-COUNTIES
(NO.)

SMSA AND CITY-COUNTY	TOTAL 1982	TOTAL 1983	ANNUAL PERCENT CHANGE*
Albany SMSA	1499	1686	22.9
Americus-Sumter	514	714	41.7
Athens SMSA	2859	3424	18.1
Atlanta SMSA	84539	119731	41.6
Augusta SMSA**	7012	9238	31.4
Bainbridge-Decatur	363	437	20.4
Brunswick-Glynn	1492	2086	18.2
Columbus SMSA**	5166	6727	23.1
Dalton-Whitfield	1523	2203	44.8
Dublin-Laurens	788	1043	32.4
Elberton-Elbert	309	439	42.1
Gainesville-Hall	1694	2560	49.9
Griffin-Spalding	894	1195	33.8
LaGrange-Troup	1055	1744	65.3
Macon-Warner Robins SMSA	7538	9913	31.5
Moultrie-Colquitt	604	801	32.6
Newnan-Coweta	931	1460	56.5
Rome-Floyd	1859	2678	44.1
Savannah SMSA	6991	9325	33.4
Thomasville-Thomas	844	1001	18.6
Valdosta-Lowndes	1822	2359	29.5
Warner Robins-Houston	2482	3220	29.7
Waycross-Ware	777	1111	43.0
Georgia	162975	226177	38.8

Source: R.L. Polk and Co., Re-use only by permission of R.L. Polk and Co.

*Percent change from 1982 to 1983
**SMSA includes only those counties in Georgia
SMSAs as defined before June 30, 1983

MANUFACTURING AVERAGE WEEKLY HOURS, BY INDUSTRY
(Hours)

INDUSTRY	GEORGIA			ATLANTA		
	AVERAGE 1982*	AVERAGE 1983*	AVERAGE PERCENT CHANGE	AVERAGE 1982*	AVERAGE 1983*	AVERAGE PERCENT CHANGE
Food and Kindred Products						
Textile Mill Products						
Apparel and Other Textiles						
Lumber and Wood Products						
Furniture and Fixtures						
Paper and Allied Products						
Printing & Allied Products						
Chemicals & Allied Products						
Rubber, Misc. Plastic Products						
Leather and Leather Products						
Primary Metal Industries						
Fabricated Metal Products						
Machinery, Except Electrical						
Electrical and Electronic Equipment						
Transportation Equipment						
Instruments and Related Products						
Miscellaneous Manufacturing						

Source: Georgia Department of Labor

*All data are preliminary and subject to revision.

MANUFACTURING AVERAGE HOURLY EARNINGS, BY INDUSTRY
($)

INDUSTRY	GEORGIA			ATLANTA		
	AVERAGE 1982*	AVERAGE 1983*	AVERAGE PERCENT CHANGE	AVERAGE 1982*	AVERAGE 1983*	AVERAGE PERCENT CHANGE
Food and Kindred Products						
Textile Mill Products						
Apparel and Other Textiles						
Lumber and Wood Products						
Furniture and Fixtures						
Paper and Allied Products						
Printing & Allied Products						
Chemicals & Allied Products						
Rubber, Misc. Plastic Products						
Leather and Leather Products						
Primary Metal Industries						
Fabricated Metal Products						
Machinery, Except Electrical						
Electrical and Electronic Equipment						
Transportation Equipment						
Instruments and Related Products						
Miscellaneous Manufacturing						

Source: Georgia Department of Labor

*All data are preliminary and subject to revision.

AGRICULTURAL EMPLOYMENT, BY INDUSTRY AND AREA
(1)

INDUSTRY AND AREA	AVERAGE 1982	AVERAGE 1983	AVERAGE PERCENT CHANGE	INDUSTRY AND AREA	AVERAGE 1982	AVERAGE 1983	AVERAGE PERCENT CHANGE
Total Employment				Livestock and Livestock Products			
Albany				Albany			
Atlanta				Atlanta			
Augusta				Augusta			
Columbus				Columbus			
Macon				Macon			
Savannah				Savannah			
Valdosta				Valdosta			
Poultry and Eggs				Dairy Products			
Albany				Albany			
Atlanta				Atlanta			
Augusta				Augusta			
Columbus				Columbus			
Macon				Macon			
Savannah				Savannah			
Valdosta				Valdosta			
Cotton				Other Crops			
Albany				Albany			
Atlanta				Atlanta			
Augusta				Augusta			
Columbus				Columbus			
Macon				Macon			
Savannah				Savannah			
Valdosta				Valdosta			
Forestry and Fishing				Agricultural Services			
Albany				Albany			
Atlanta				Atlanta			
Augusta				Augusta			
Columbus				Columbus			
Macon				Macon			
Savannah				Savannah			
Valdosta				Valdosta			

Source: Georgia Department of Labor

(1) Total Employment includes Agricultural Services, Forestry and Fishing

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CORRECTION

The following change should be made on page 1 of the article by Phillip A. Cartwright. "Relative to 1983, we expect inventory investment to slow down" should be changed to read, "Relative to late 1983 and the first months of 1984, we expect inventory investment to slow down."

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Local Support for Education in Georgia

Part 1
Suzanne A. Lindsay

The importance of education to Georgia's economic growth has been widely recognized. Recent discussions of the state's educational systems also have identified problems of achievement, policy, and financing. The proponents of solutions find a major challenge in the diversity of the 187 local school systems that provide public education for elementary and secondary students. This first of a two-part series examines that diversity, especially as it applies to local financing of school programs, and illustrates the complex problems facing educators, legislators, and others who seek to improve education in the state.

Using data for the 1981-82 school year,* this article examines two questions: what are the characteristics of Georgia's local school systems, and how is the burden of financing elementary and secondary education shared among them? Part 1 reports some measures of diversity in size, and explores the total costs and sources of receipts for education. It also examines the relationship of local receipts to the amount each system is required to raise as a condition of state aid under the Adequate Program for Education in Georgia (APEG).

In the upcoming issue, the second part of this study investigates the financial bases available to local school systems in the form of certified tax digests, the relationship of tax digests to students in average daily attendance, and the millage rates actually applied to tax digests. It summarizes one important indicator of a system's willingness to move beyond minimum support for education, supplements paid to teachers' salaries. It also highlights data on population, economic standing, and personal income, in relation to local receipts for education. Finally, Part 2 offers some general conclusions concerning local support for education in Georgia.

SYSTEM SIZES

Georgia's 187 local school systems (159 county systems plus 28 independent city systems) differ widely in two measures of size, annual enrollment and annual average daily attendance. Total enrollment varied in 1981-82 from 149 (Taliaferro County) to 78,254 (DeKalb County). Several very small systems operated only a single elementary school; others (eleven in 1981-82) shared the facilities of multi-system high schools.

Annual average daily attendance (ADA) reflects the number of students regularly served more precisely than enrollment, and often is substantially lower. Rankings based on ADAs for 1981-82 show Taliaferro County (139 ADA) as the smallest system, and DeKalb County (71,439 ADA) as the largest. As Table 1 indicates, 48.6 percent of all systems had less than 2,500 students in average daily attendance. Almost 77 percent had ADAs of less than 5,000, and only 8 percent (15 systems) had ADAs of 10,000 or more students.

As ADAs imply, the state's local school systems produce widely varying numbers of high school

*Unless otherwise noted, all data are based on information provided by the Georgia Department of Education. Percentages and rankings were determined by the Division of Research, College of Business Administration, The University of Georgia; amounts are rounded to the nearest dollar.

Table 1
Average Daily Attendance in Local School Systems, 1981-1982

ADA (Number of Students)	Number of Systems	Percent of Systems*
1 - 999	15	8.0
1,000 - 2,499	76	40.6
2,500 - 4,999	53	28.3
5,000 - 9,999	28	15.0
10,000 - 19,999	5	2.7
20,000 +	10	5.3
Total	187	99.9

*Percentages may not add to 100 because of rounding

graduates, the end product of state and local financing. The West Point independent system had only 34 graduates in 1981-82; DeKalb County had 6,150 that year. Only twelve systems (6.4 percent) graduated more than a thousand students.

The number of graduates is decreased substantially by students who drop out of school. Because of compulsory attendance laws, the main losses occur during grades 8-12, after students reach age 16. In 1981-82, the statewide rate for grades 8-12 was 5.5 percent. Five systems (2.7 percent) had exactly that rate, another 78 (41.7 percent) had rates below the average, and 97 (51.9 percent) had above average rates. (The remaining systems did not operate high schools.) Chickamauga independent school system had the lowest rate (1 percent), and Cherokee County had the highest (10.9 percent). Eleven systems reported high school (grades 8-12) dropout rates of 9 percent or higher.

Table 2 indicates the distribution of systems by dropout rate in 1981-82. Because the rates apply only to that year, they do not show the cumulative losses over the high school years. For example, 102,647 students enrolled in public ninth grades throughout Georgia in 1978-79. Four years later (1981-82), 68,756 students enrolled in twelfth grades, and 64,489 graduated from high school. If all those enrolled in the ninth grade had remained in Georgia's public schools and had graduated with their classes, the number of graduates would have been 59 percent higher. Unfortunately, the reports do not track individual students, so the dropout and graduation history of specific persons cannot be determined.

TOTAL COSTS OF EDUCATION PER STUDENT

Since the total amount spent per student reflects the educational programs and services available in a given system, total costs per student in average daily attendance indicate the relative spending of systems of

Table 2
Dropout Rates for Grades 8-12

Dropout Rate (%)*	Number of Systems	Percent of Systems
1.0 - 3.9	25	13.4
4.0 - 4.9	38	20.3
5.0 - 5.4	15	8.0
5.5*	5	2.7
5.6 - 5.9	16	8.6
6.0 - 6.9	35	18.7
7.0 - 7.9	22	11.8
8.0 - 8.9	13	7.0
9.0 +	11	5.9
No Rate Reported	7	3.7
Total	187	100.1

*Dropouts as a percentage of students enrolled in grades 8-12
*State average

different sizes. For the entire state, the total cost per ADA student in 1981-82 was $1,858; 32 systems spent more than the state average and 155 spent less. Individual systems' costs ranged from $1,105 per ADA student in the Chickamauga independent system, to $3,405 in Taliaferro County, a figure more than three times as high. Cumulatively, almost 80 percent of the 187 systems had total costs per ADA student of less than $1,800, another 9.6 percent fell between $1,800 and $2,000, and 10.7 percent reported costs of more than $2,000 per ADA student (Table 3). Clearly, a few systems with relatively high costs per student pulled the statewide average much higher than it would have been otherwise.

TOTAL AND LOCAL RECEIPTS

Georgia's local school systems draw funds from local, state, and federal sources to meet their costs. Excluding capital outlay funds and costs, the relative contribution of each source of total receipts for maintenance and operation varied considerably from system to system. Table 4 summarizes the number of systems raising a given percentage of total receipts from each source. It indicates that very few of the systems raised

Table 3
Total Cost per Child in Average Daily Attendance

Total Cost per ADA Child ($)	Number of Systems	Percent of Systems
1,100 - 1,399	18	9.6
1,400 - 1,599	62	33.2
1,600 - 1,799	69	36.9
1,800 - 1,999	18	9.6
2,000 - 2,399	13	7.0
2,400 +	7	3.7
Total	187	100.0

as much as 40 percent of their total receipts for maintenance and operation from local sources of revenue. In 71.7 percent of the systems, local receipts were less than 30 percent of total receipts. In 93 percent of the systems, local receipts were less than 40 percent of total receipts. The Jefferson independent school system had the lowest local share of total receipts (10.5 percent); Fulton County had the highest (52 percent).

In contrast, state government provided at least 40 percent of the total receipts of every local school system in Georgia. Slightly over 4 percent of the systems received between 40 to 49 percent of total receipts from the state; 71.6 percent received between 50 and 69.9 percent, and 23.5 percent received between 70 and 80 percent from that source. The Atlanta school system had the lowest state share (42.2 percent of total receipts), while the Jefferson independent school system had the highest (80.4 percent of total receipts).

In most systems, the federal government contributed a relatively small share of total receipts. During 1981-82, 70.6 percent of local school systems had federal shares of less than 10 percent. An additional 28.9 percent had shares between 10 and 19.9 percent. Only Clay County had a federal share (20.3 percent) above 20 percent of total receipts. The Trion independent school system reported the lowest federal share, 1.4 percent.

RECEIPTS PER STUDENT

When local and total receipts are divided by the number of students, the per student figures help to show the relative resources of each system. In 1981-82, Hogansville had the lowest amount of *local* receipts per student in average daily attendance ($197); the highest amount—Atlanta's $1,444—was more than seven times larger. The state average was $701, with 35 local systems having per ADA child local receipts above that figure and 142 below it.

Total receipts per ADA child ranged from $1,336 (Trion) to an amount over twice that ($3,474 for Baker County). The state average was $2,058; 52 systems were above that level and 135 fell below it. Variation in local receipts per ADA student thus was mitigated by state and federal support, but considerable differences in the overall amounts available per student still remained.

Table 6 indicates the numbers and percentages of systems falling in various ranges of local and total receipts per child. For example, 63.6 percent of all systems had *local* per student receipts between $300 and $600; 9.1 percent had less than $300, and 27.3 percent more than $600. Of the systems, 12.8 percent had *total* receipts per student of less than $1,700; another 52.9 percent had total receipts between $1,700 and $2,000, and the remaining one-third (34.2 percent) were scattered between $2,000 and $3,500.

RELATIVE SYSTEM RANKINGS

The relative standings of Georgia's local school systems, as measured by rankings of average daily attendance, required local effort under APEG, local receipts per child, total receipts per child, and total cost per child, are given in Table 7. Some effects of size, local effort and combined state/federal support can be deduced. Baker County, for example, ranked 182nd (the sixth smallest system) in average daily attendance in 1981-82. Its rank in required local effort was 145th, yet it ranked second in local receipts per ADA student, first in total receipts per ADA student, and fourth in total cost per ADA student. In contrast,

Table 4
Sources and Percentage Shares of Total Receipts[a]

Percent Range	Source of Receipts: Local Number of Systems	Local Percent of Systems	State Number of Systems	State Percent of Systems	Federal Number of Systems	Federal Percent of Systems
0 - 9.9	0	0	0	0	132	70.6
10 - 19.9	36	19.3	0	0	54	28.9
20 - 29.9	98	52.4	0	0	1	0.5
30 - 39.9	40	21.4	0	0	0	0
40 - 49.9	11	5.9	8	4.3	0	0
50 - 59.9	2	1.1	29	15.5	0	0
60 - 69.9	0	0	105	56.1	0	0
70 - 79.9	0	0	44	23.5	0	0
80 +	0	0	1	0.5	0	0
Total*	187	100.1	187	99.9	187	100.0

[a]Total receipts for maintenance and operation
*Percentages may not add to 100 because of rounding

TABLE 5 (CONTINUED)

SOURCES OF RECEIPTS AND REQUIRED LOCAL EFFORT,
LOCAL SCHOOL SYSTEMS, 1981-82

Table 6
Local and Total Receipts per Child

Local Receipts Per Child ($)	Number of Systems	Percent of Systems	Total Receipts Per Child ($)	Number of Systems	Percent of Systems
100 - 299	17	9.1	1,300 - 1,699	24	12.8
300 - 599	119	63.6	1,700 - 1,999	99	52.9
600 - 899	36	19.3	2,000 - 2,299	42	22.5
900 - 1,199	9	4.8	2,300 - 2,599	14	7.5
1,200 and over	6	3.2	2,600 and over	8	4.2
Total	187	100.0	Total	187	99.9

TABLE 7

RANKING OF SYSTEMS BY SIZE AND SELECTED MEASURES OF COST AND EFFORT, 1981-1982

System	Service Area Population	Operating Revenue per Capita	Operating Expenses per Capita	Operating Expenses per Vehicle Mile	Operating Expenses per Vehicle Hour
Anniston	1	14	4	4	16
Auburn-Opelika	2	13	11	7	14
Bessemer	3	12	12	9	13
Decatur	4	11	13	11	12
Florence	5	10	10	10	11
Gadsden	6	9	9	8	10
Huntsville	7	8	8	6	9
Mobile	8	7	7	5	8
Montgomery	9	6	6	3	7
Tuscaloosa	10	5	5	2	6
Alaska					
Anchorage	1	1	1	1	1
Fairbanks	2	2	2	2	2
Arizona					
Flagstaff	1	1	1	1	1
Mesa	2	2	2	2	2
Phoenix	3	3	3	3	3
Scottsdale	4	4	4	4	4
Tempe	5	5	5	5	5
Tucson	6	6	6	6	6
Arkansas					
Fayetteville	1	1	1	1	1
Fort Smith	2	2	2	2	2
Little Rock	3	3	3	3	3
North Little Rock	4	4	4	4	4
Pine Bluff	5	5	5	5	5
California					
Alameda	1	1	1	1	1
Anaheim	2	2	2	2	2
Bakersfield	3	3	3	3	3
Berkeley	4	4	4	4	4
Chula Vista	5	5	5	5	5
Concord	6	6	6	6	6
Corona	7	7	7	7	7
Costa Mesa	8	8	8	8	8
Culver City	9	9	9	9	9
Daly City	10	10	10	10	10
Downey	11	11	11	11	11
El Cajon	12	12	12	12	12
Escondido	13	13	13	13	13
Fremont	14	14	14	14	14
Fresno	15	15	15	15	15
Fullerton	16	16	16	16	16
Garden Grove	17	17	17	17	17
Glendale	18	18	18	18	18
Hayward	19	19	19	19	19
Huntington Beach	20	20	20	20	20
Inglewood	21	21	21	21	21
Irvine	22	22	22	22	22
Lakewood	23	23	23	23	23
Long Beach	24	24	24	24	24
Los Angeles	25	25	25	25	25
Modesto	26	26	26	26	26
Monterey Park	27	27	27	27	27
Newport Beach	28	28	28	28	28
Norwalk	29	29	29	29	29
Oakland	30	30	30	30	30
Oceanside	31	31	31	31	31
Orange	32	32	32	32	32
Oxnard	33	33	33	33	33
Palmdale	34	34	34	34	34
Pasadena	35	35	35	35	35
Pomona	36	36	36	36	36
Rancho Cucamonga	37	37	37	37	37
Redlands	38	38	38	38	38
Richmond	39	39	39	39	39
Riverside	40	40	40	40	40
Sacramento	41	41	41	41	41
Salinas	42	42	42	42	42
San Bernardino	43	43	43	43	43
San Diego	44	44	44	44	44
San Francisco	45	45	45	45	45
San Jose	46	46	46	46	46
San Leandro	47	47	47	47	47
San Mateo	48	48	48	48	48
Santa Ana	49	49	49	49	49
Santa Barbara	50	50	50	50	50
Santa Clara	51	51	51	51	51
Santa Cruz	52	52	52	52	52
Santa Monica	53	53	53	53	53
Santa Rosa	54	54	54	54	54
Simi Valley	55	55	55	55	55
Stockton	56	56	56	56	56
Sunnyvale	57	57	57	57	57
Torrance	58	58	58	58	58
Vallejo	59	59	59	59	59
Ventura	60	60	60	60	60
Visalia	61	61	61	61	61
Walnut Creek	62	62	62	62	62
Colorado					
Aurora	1	1	1	1	1
Boulder	2	2	2	2	2
Colorado Springs	3	3	3	3	3
Denver	4	4	4	4	4
Fort Collins	5	5	5	5	5
Grand Junction	6	6	6	6	6
Greeley	7	7	7	7	7
Lakewood	8	8	8	8	8
Pueblo	9	9	9	9	9
Connecticut					
Bridgeport	1	1	1	1	1
Bristol	2	2	2	2	2
Danbury	3	3	3	3	3
Hartford	4	4	4	4	4
Meriden	5	5	5	5	5
Middletown	6	6	6	6	6
New Britain	7	7	7	7	7
New Haven	8	8	8	8	8
Norwalk	9	9	9	9	9
Stamford	10	10	10	10	10
Waterbury	11	11	11	11	11
West Hartford	12	12	12	12	12
Delaware					
Dover	1	1	1	1	1
Newark	2	2	2	2	2
Wilmington	3	3	3	3	3
District of Columbia					
Washington	1	1	1	1	1
Florida					
Boca Raton	1	1	1	1	1
Bradenton	2	2	2	2	2
Clearwater	3	3	3	3	3
Daytona Beach	4	4	4	4	4
Fort Lauderdale	5	5	5	5	5
Fort Myers	6	6	6	6	6
Gainesville	7	7	7	7	7
Hollywood	8	8	8	8	8
Jacksonville	9	9	9	9	9
Lakeland	10	10	10	10	10
Miami	11	11	11	11	11
Orlando	12	12	12	12	12
Pensacola	13	13	13	13	13
Pompano Beach	14	14	14	14	14
Sarasota	15	15	15	15	15
St. Petersburg	16	16	16	16	16
Tallahassee	17	17	17	17	17
Tampa	18	18	18	18	18
West Palm Beach	19	19	19	19	19

(continued)

DeKalb County, the first-ranking system in average daily attendance, stood second in required local effort, but eleventh in local receipts per ADA child, 23rd in total receipts per ADA child, and eleventh in total cost per ADA child. Such disparities result in part from the mechanisms by which required local effort for education, and the support levels of basic state aid, are determined.

LOCAL RECEIPTS AND REQUIRED LOCAL EFFORT

Since July 1975, Georgia has financed a basic program of public elementary and secondary education through a partnership of state and local school systems known as the Adequate Program for Education in Georgia (APEG). This includes grants for salaries, instructional media and equipment, maintenance and operation, sick and personal leave, travel, transportation of students, and additional funds for isolated schools.

Each year, local systems are required to raise part of the total cost of providing the basic APEG package. Each local share is based on that system's share in the total (statewide) current equalized adjusted (to 100 percent of market value) school property tax digests for maintenance and operation and for bonds, as determined by the state auditor. Once a system's percentage of statewide digests is determined, its Required Local Effort (RLE) is computed as that percentage times $78,550,000 (for 1981-82), which is the total required local effort for the state. If, for example, a school system had 1 percent of the total adjusted state digests in 1981-82, its RLE that year was 1 percent of the statewide required local effort amount, or $785,500. RLEs thus reflect each system's economic base of taxable property, rather than the number of students to be served or the total program to be funded. Systems with concentrations of taxable property, such as those in metropolitan areas, or those with highly-valued industrial or utility property, thus will have higher RLEs than those of areas with lower total property values.

Each school system's RLE is *subtracted* from the funds sent by the state to that system. RLEs are thus a paper transaction, in that local systems do *not* remit funds to the state. In effect, RLEs require the systems to raise at least those amounts of money through local sources (primarily property taxes) in order to qualify for state aid under APEG. Since the total statewide RLE is currently frozen between $78,500,000 and $78,600,000, in recent years local systems actually have been paying a decreasing proportion of total APEG costs, given inflation.

Every local school system in Georgia raises more local funds than its requirement under APEG. Since APEG covers only certain costs, local systems must absorb non-covered costs that are not met from other state funding or from federal grants. For example, if a system wishes to add non-covered programs or to

Table 8
Amounts of Required Local Effort

Amount of RLE ($)	Number of Systems	Percent of Total
1 - 299,999	134	71.7
300,000 - 599,999	33	17.6
600,000 - 899,999	7	3.7
900,000 +	13	7.0
Total	187	100.0

supplement salaries, it must raise additional money. So the relationship of RLE to local receipts for maintenance and operation helps to show the extent to which a system goes beyond the minimum APEG program.

Table 5 indicates, by system, the amount of required local effort, local receipts, and RLE as a percentage of local receipts, for 1981-82. Table 8 summarizes the distribution of school systems by amount of RLE. Of the state's school systems, 71.7 percent had RLEs below $300,000; only 10.7 percent had RLEs above $600,000. Chattahoochee County had the lowest RLE ($19,438); Atlanta had the highest ($7,432,783).

Table 9 summarizes the distribution of RLEs as a percentage of local receipts for maintenance and operation. The lower the percentage, the larger the proportion of funds the system is raising above its RLE. The lowest percentage was Atlanta (8 percent) indicating that Atlanta raised approximately 12.5 times its RLE. The highest percentage, 43.7 percent in Taliaferro County, meant the system raised 2.3 times its RLE. Tables 5, 8, and 9 together show that for most school systems, RLEs were comparatively small, and

Table 9
Required Local Effort as a Percentage of Local Receipts for Maintenance and Operation

RLE as a % of Local Receipts	Number of Systems	Percent of Total
5.0 - 9.9	12	6.4
10.0 - 14.4	89	47.6
15.0 - 19.9	52	27.8
20.0 - 24.9	24	12.8
25.0 - 29.9	7	3.7
30.0 - 34.9	1	0.5
35.0 - 39.9	1	0.5
40.0 +	1	0.5
Total	187	99.8

that very few systems in 1981-82 limited their local receipts to a small multiple of their required local effort under APEG. The rankings of system RLEs in Table 7 show the relative positions of the local systems.

SUMMARY

Information on school system sizes, total costs, receipts, and required local effort illustrates both the diversity of local school systems in Georgia, and the extent to which state and federal funding supplements locally raised funds. Despite such supplements, considerable disparities in costs and receipts per student remain between systems. This situation reflects both the taxable resources available to local school systems, and their individual decisions to provide educational support beyond the minimum required by the state.

1983 State Unemployment Rates

Reflecting Georgia's economic recovery in 1983, almost two-thirds of the state's counties experienced lower annual average unemployment rates than in 1982. Revised 1982 data and recently released 1983 estimates show that the state's modest drop of .3 percentage points in annual average unemployment rate (from 7.8 percent of the civilian labor force in 1982 to 7.5 percent in 1983) conceals considerable improvement in the patterns of unemployment rates among counties.

As previous discussions of county unemployment patterns have indicated, (see the November and January issues of this magazine) annual average unemployment rates shift with the state's overall economic changes. As Figure 1 shows, urban counties and those with extensive governmental employment maintained moderate levels of unemployment in 1983; in addition, scattered individual counties improved to that level. Although no county in Georgia had a low (an annual average rate of unemployment of 3 to 4.9 percent) rate in either year, the group with moderate rates (5 to 6.9 percent) increased from 35 (22 percent of all counties) in 1982 to 39 (24.5 percent) in 1983. The number of counties with high (7 to 9.9 percent) rates grew from 77 (48.4 percent) in 1982 to 89 (56 percent) in 1983. The growth in moderate and high unemployment rate counties actually reflected positive improvement: counties experiencing very high (10 percent or more) annual average unemployment rates dropped from 47 (29.6 percent of all counties) in 1982 to 31 (19.5 percent) in 1983 (see Table 1).

By far, the greatest number of counties experienced annual average unemployment rates in the range of 7 to 7.9 percent and 8 to 8.9 percent during 1983. Figure 2 shows the distribution of rates for all counties during that year. Revised data for 1982 indicate an overall range of rates from 5.1 percent (Camden County) to 19.4 percent (McDuffie County) in the earlier year. The range narrowed in 1983, from 5.1 percent (Fayette County) to 14.5 percent (McDuffie County).

Rate changes among individual counties were almost universal. As Table 2 indicates, 102 (64.2 percent) of the counties had *lower* annual average unemployment rates in 1983 than in 1982. Three counties (1.9 percent) had the *same* rates as in 1982, and 54 (34 percent) had *higher* rates. Table 3 shows that most increases in rates were relatively small. Forty (74.1 percent) of the 54 counties with increases had rates

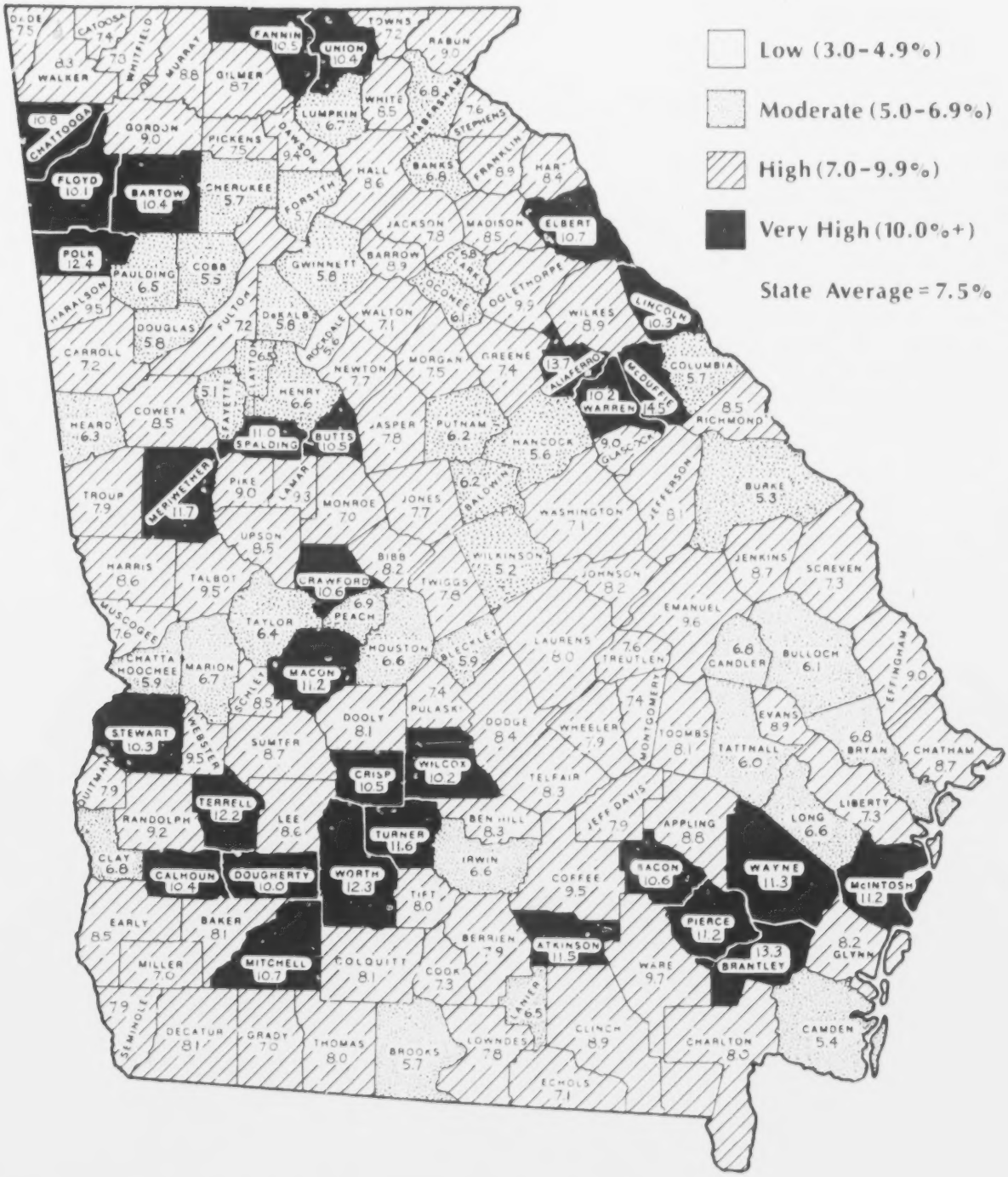
Table 1
Distribution of County Unemployment Rates

Rate (%)	1982		1983	
	Number of Counties	Percent of Total	Number of Counties	Percent of Total
Low (3.0 - 4.9)	0	0	0	0
Moderate (5.0 - 6.9)	35	22.0	39	24.5
High (7.0 - 9.9)	77	48.4	89	56.0
Very High (10.0 or more)	47	29.6	31	19.5

Source: Based on annual average unemployment rates as a percentage of the civilian labor force, by place of residence, prepared by the Georgia Department of Labor

Figure 1

1983 GEORGIA COUNTY UNEMPLOYMENT RATES*



*Annual average unemployment as a percentage of the civilian labor force, by place of residence

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Table 2
Change in County Unemployment Rates, 1982 to 1983

Change	Number of Counties	Percent of Total
Higher rate in 1983	54	34.0
Lower rate in 1983	102	64.2
Unchanged	3	1.9

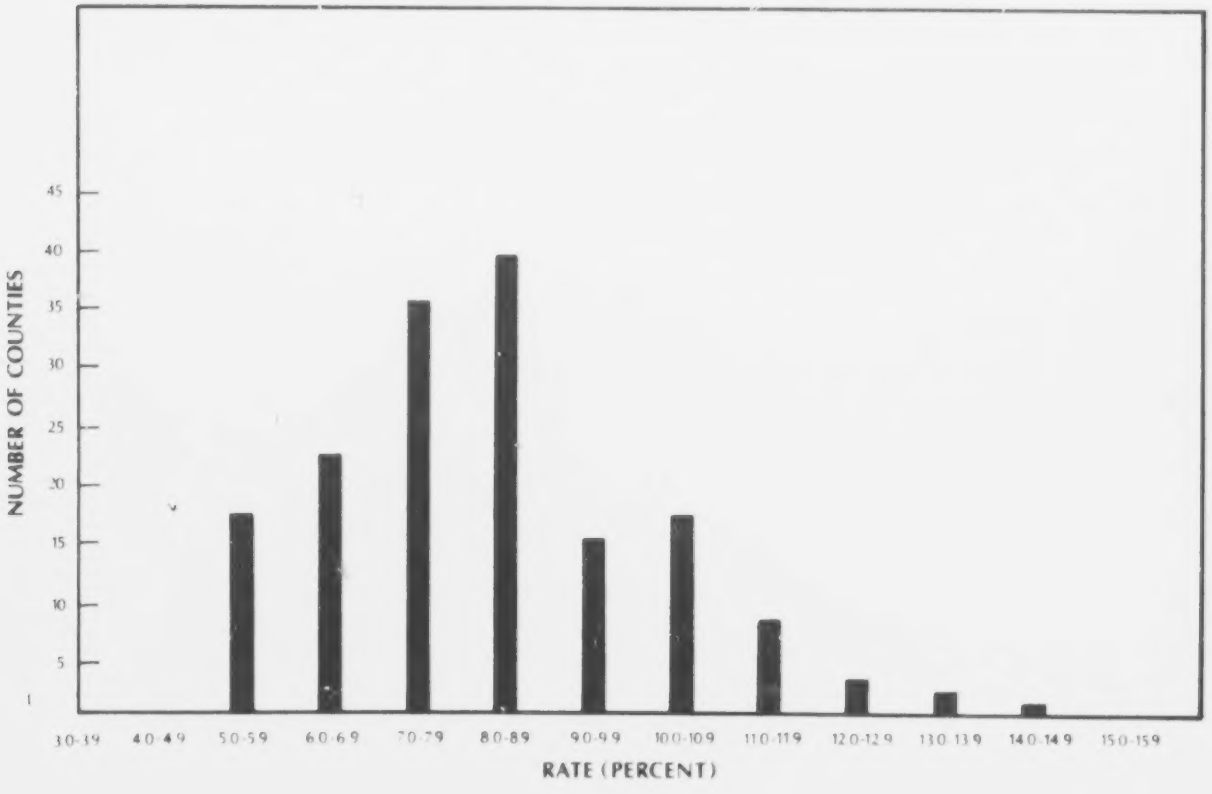
Table 3
Distribution of Increases, 1982 to 1983

Range of change (percentage points)	# of Counties	% of Total with Increase (N = 54)	% of All Counties (N = 159)
.1 - .9	40	74.1	25.2
1.0 - 1.9	10	18.5	6.3
2.0 - 2.9	4	7.4	2.5

Table 4
Distribution of Decreases, 1982 to 1983

Range of change (percentage points)	# of Counties	% of Total with Increase (N = 102)	% of All Counties (N = 159)
.1 - .9	45	44.1	28.3
1.0 - 1.9	36	35.3	22.6
2.0 - 2.9	8	7.8	5.0
3.0 - 3.9	8	7.8	5.0
4.0 or more	5	4.9	3.1

Figure 2
GEORGIA COUNTY UNEMPLOYMENT RATES, 1983



higher by less than one percentage point; ten (18.5 percent) had increases of 1 to 1.9 percentage points, and only four (7.4 percent) had increases of 2 to 2.9 percentage points.

In contrast, decreases in county rates occurred over a wider range (Table 4). Forty-five (44.1 percent) of the 102 counties with lower rates in 1983 showed drops of less than one percentage point. Another 36 (35.3 percent) had decreases of 1 to 1.9 percentage points. Eight counties (7.8 percent) had drops between 2 to 2.9 percentage points, and another eight experienced decreases of 3 to 3.9 percentage points. Five counties had drops of 4 percentage points or higher. Warren County experienced the largest decrease: its revised 1982 unemployment rate of 17 percent dropped by 6.8 percentage points, to 10.2 percent in 1983.

The drop in Georgia's statewide average annual unemployment rate, and the accompanying shifts in county rates, took place when the state's total labor force was expanding. Between 1982 and 1983, Georgia's annual average civilian labor force rose from 2,664,000 to 2,697,000, an increase of 1.24 percent. The annual average number of employed persons increased at a higher rate—1.59 percent—from 2,456,000 to 2,495,000. The annual average number of unemployed persons dropped by 2.8 percent, from 208,000 to 202,000. The picture given by labor force, employment and unemployment rate data is thus one of an economy improving both statewide and in many local areas.

—JSA

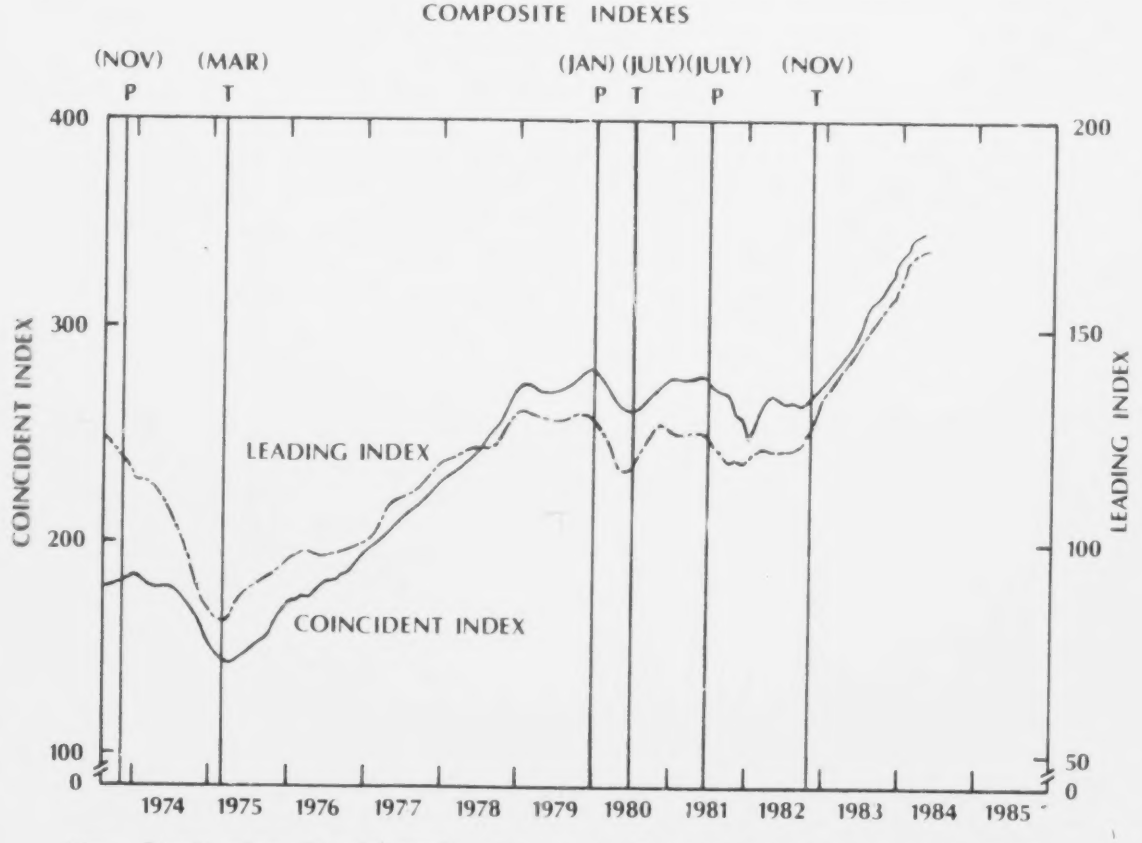
Composite Indexes of Leading and Coincident Georgia Economic Indicators

The state's economic strength continued in February, with the leading and coincident indexes advancing by 1.8 and 1.6 percent, respectively. The jump in the coincident index was supported by a 4.5 percent increase in seasonally adjusted real retail sales, while real average weekly earnings in manufacturing and nonagricultural employment reported increases of 1.4 and .5 percent over the month.

The leading index indicated the Georgia economy is likely to remain healthy over the short term. While seasonally adjusted initial unemployment claims dropped 2.9 percent in February, new housing permits soared. Following the 32.6 percent drop in December and 6.4 percent seasonally adjusted increase in January, February's 30.2 percent jump was not surprising. The index of Help Wanted Advertisements, Atlanta slid 1.9 percent, however.

Both indexes remained virtually unchanged in March. The coincident index gained only 0.2 percent on the month-over-month basis. Although nonagricultural employment advanced 0.4 percent, real retail sales and real average weekly earnings in manufacturing slid by 3.4 and 0.6 percent.

The leading index showed no movement as initial unemployment claims, new housing permits and the Help Wanted Advertisements were weak. This was not alarming, however, as the overall rate of growth of the state's economy is expected to diminish over the coming months. Still, available information indicates that the Georgia economy is fundamentally strong.



Note: P (peak) indicates the end of general business expansion at the national level and the beginning of recession.
T (trough) indicates the end of general business recession at the national level and the beginning of expansion.

GEORGIA BUSINESS STATISTICS

SERIES	MAR 1984	FEB 1984	JAN 1984	MAR 1983
Georgia Leading Indicators Index[1] (1969=100)	168.30	168.26	166.37	139.41
Georgia Coincident Indicators Index[1] (1969=100)	345.08	344.26	341.76	290.44
Nonagricultural Employment[2] (thousands)	2343.7	2318.2	2306.1	2219.2
Manufacturing Employment[2] (thousands)	524.9	521.8	520.5	496.6
Average Weekly Earnings, Manufacturing[2] (dollars)	308.10	301.84	300.70	286.53
Help Wanted Advertising, Atlanta Index[3] (1967=100)	261	265	270	148
Taxable Retail Sales[4] ($ millions)	2737.0	2536.9	2324.0	2476.1
Building Permits[5]				
Residential Housing Units, Private (thousands)	6393	6164	4661	5702
Value of Residential Housing ($ thousands)	277828	244281	185510	216062
Value of Nonresidential Construction ($ thousands)	196625	107410	105190	93865
Industrial Buildings	15235	6031	18212	17768
Office, Bank and Other Professional Buildings	77533	24030	30984	15014
Stores and Other Merchantile Buildings	19721	29644	10791	12553
Other	84136	47705	45203	48530
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December, 1977 = 100)	-	166.1	-	158.9
South/Population more than 1,250,000	-	165.7	-	158.0
South/Population 385,000 to 1,250,000	-	166.9	-	159.5
South/Population 75,000 to 385,000	-	165.3	-	159.0
South/Population 2,500 to 75,000	-	166.6	-	159.5
Atlanta (1967=100)	-	309.3	-	295.1
Prices Received by Farmers, Georgia Index[7] (1977=100)	144	146[r]	149	126
	1983:IV	1983:III	1983:II	1983:I
Total Personal Income[8] ($ millions)	61025	59613	58459	56680

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[1] Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2] Labor Information Systems, Georgia Department of Labor

[3] Series published by The Conference Board, Inc.

[4] Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue

[5] U.S. Department of Commerce, Bureau of the Census

[6] U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office

[7] Georgia Department of Agriculture, Georgia Crop Reporting Service

[8] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

[a] December, 1982

[r] Revised

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Local Support for Education in Georgia

Part 2

Suzanne A. Lindsay

Since Georgia's local school systems depend primarily upon local property tax receipts to finance their shares of local educational expenses, the distribution of taxable property is important. As noted in Part 1, the Required Local Effort (RLE) for each system is based upon its share of statewide school tax digests for maintenance and operations and for bonds. Local digests also represent the resources available to support spending above the levels required for state aid.

Table 1 summarizes the distribution of tax digests for maintenance and operation per child in average daily attendance, among local systems. In 1981-82, amounts ranged from $448 per child (Vidalia) to $241,667 per child (Dalton). Three systems (1.6 percent) had per child digests of less than $10,000; over half the systems had per child amounts falling between $30,000 and $50,000. Almost 13 percent had per child tax digests of over $60,000.

MILLAGE RATES

Ideally, school millage rates should be considered in conjunction with the total millage rates applied to taxable property in local areas, a question beyond the scope of this study. The range of levies for school maintenance and operation only in 1981-82 ranged from 4.23 mills (Taliaferro County) to 23.75 mills (Atlanta). Six systems reported no levies for school maintenance and operation, probably because they lacked direct taxing authority. Only four systems (2.1 percent) imposed maintenance and operation levies of 20 mills or above. (Under Georgia law, levies for school support may not exceed 20 mills unless authorized by a local referendum.) An additional 20.3 percent of the systems levied between 15 and 19.9 mills; almost three-quarters (72.2 percent) levied between 5 and 14.99 mills.

Bond millage levies for the 187 systems ranged from 0.08 mills (Burke County) to 6 mills (Commerce). As Table 3 indicates, 57 systems (30.5 percent) levied no bond millage in 1981-82. An additional 40.1 percent levied less than 1 mill, and only 10.7 percent levied two mills or more.

LOCAL SUPPLEMENTS TO TEACHERS' SALARIES

Given local resources in the form of tax digests and their yields, local receipts, and the evidence (see Part 1) that every local school system in Georgia raises at least twice its Required Local Effort under the APEG program, what other measures of a school system's ability and willingness to invest more than a minimum exist? One such measure is the local supplementation of teachers' basic state salaries.

Although no complete statistics on teachers' pay supplements were collected for 1981-82, the Georgia Association of Educators did survey local school superintendents on the question that year. Of the 120 systems responding (64.2 percent of the 187 local systems), 110 (91.6 percent of respondents and 58.8 percent of the total) paid a supplement of some sort.[1] A complete survey for the following school year, 1982-83, conducted in all systems by the Georgia

[1]Unpublished data from Georgia Association of Educators, Decatur, Georgia, August 1983.

Table 1
Distribution of Tax Digests for Maintenance and Operation Per ADA Child, 1981-1982

Digest Amount Per Child ($)	Number of Systems	Percent of Systems
1- 9,999	3	1.6
10,000-29,999	35	18.7
30,000-49,999	100	53.5
50,000-69,999	34	18.2
70,000-89,999	6	3.2
90,000 and over	8	4.3
Data Not Available	1	0.5
Total	187	100.0

Source: Georgia Department of Education.

Department of Education, found that 168 systems (89.8 percent) paid some form of supplement to their classroom teachers. Twenty systems (10.7 percent) based the supplement on a percentage of the state salary amount; such supplements added from 1.7 percent to 12 percent to teachers' basic state payments, with amounts ranging from a minimum of $124 to a maximum of $2,762. A local supplement scale was used by 117 systems, with payments ranging from $100 to $7,376.[2] Thirty-two systems (17.1 percent) paid a flat amount as a supplement regardless of a teacher's level of certification or experience; amounts ranged from $100 to $1,500.

Many systems also supplement the state salaries paid to non-teaching personnel, such as principals, superintendents, other administrators, and coaches. Since supplements are locally financed, their provision by almost 90 percent of the state's school systems indicates not only a willingness to go beyond the minimum provided by APEG, but also the need to attract and keep teachers in an increasingly competitive environment.

LOCAL RECEIPTS AND TOTAL PERSONAL INCOME

Spending beyond the minimum required local effort, whether for salary supplements or for other purposes, increases the total cost for a local school system and the area that supports it. To some extent, the relationship of funds raised (total local receipts) to the total personal income of an area also indicates its relative educational effort. The relationship is not precise, since personal income estimates are made for calendar years, and local receipts (for maintenance and operation) are recorded by school year. In addition, personal income estimates are not available for cities having independent school systems, although data for the counties in which they are located do give some idea of their economic environments. Moreover, to the extent that school taxes are "exported"—that is, paid by persons living outside the county in which they are imposed—local personal income bears only part of the total burden of revenue-raising for local schools. Adjustments for such "exporting" of taxes have not been attempted in this study.

Total personal income is defined as the total income received by, or on behalf of, the residents of an area, excluding contributions to social insurance but without deductions for taxes. The Bureau of Economic Analysis of the U.S. Department of Commerce prepares annual estimates of U.S., state, and county personal income and per capita personal income. Table 4 shows the 1981 total personal income for Georgia's 159 counties, as well as the percentages of personal income represented by local school receipts for each county in 1981-82. A summary (Table 5) indicates that on the average, local receipts for county school systems were 4 percent of county personal income. Percentages ranged from 9.2 percent (Stewart County) to 0.4 percent (Chattahoochee County). Thirty counties (18.8 percent) had percen-

Table 2
Distribution of Levies for Maintenance and Operation

M & O Levy (mills)	Number of Systems	Percent of Systems
0.0[a]	6	3.2
0.01- 4.99	4	2.1
5.0 - 9.99	58	31.0
10.0 -14.99	77	41.2
15.0 -19.99	38	20.3
20.00 +	4	2.1
Total[b]	187	99.9

[a]No M & O levy made through school system.
[b]Percentages may not add to 100 because of rounding.

Table 3
Distribution of Levies for Bonds, By School System, 1981-1982

Bond Levy (mills)	Number of Systems	Percent of Systems
0.0	57	30.5
0.01- .99	75	40.1
1.0 -1.99	35	18.7
2.0 -2.99	15	8.0
3.0 -3.99	3	1.6
4.0 +	2	1.1
Total	187	100.0

[2]Minimum amounts reflect the supplements payable to teachers with a bachelor's degree and no experience; maximum amounts, supplements for teachers with doctoral degrees and the maximum allowable years of experience or steps in grade.

TABLE 4

COMPARATIVE RANKINGS, PERSONAL INCOME, AND LOCAL SCHOOL RECEIPTS
FOR GEORGIA COUNTIES

County	Population Rank[a] (1980)	Master Economic Rank[b] (1981)	Total Personal Income[c] (1981) ($ thousands)	Local Receipts[d] as a % of Total Personal Income
Appling	78	63	113,057	7.3
Atkinson	142	144	39,266	6.9
Bacon	116	110	61,664	6.1
Baker	152	148	25,177	5.7
Baldwin	36	41	272,533	4.1
Banks	125	115	47,474	5.4
Barrow	55	50	174,329	4.3
Bartow	24	22	337,296	4.1
Ben Hill	77	74	116,717	1.4
Berrien	87	89	93,812	5.9
Bibb	8	9	1,458,688	3.4
Bleckley	105	113	73,402	5.3
Brantley	125	126	43,909	8.2
Brooks	80	94	96,810	5.9
Bryan	110	103	56,686	6.6
Bulloch	34	32	267,019	4.5
Burke	63	56	139,952	5.3
Butts	86	87	91,250	5.0
Calhoun	145	139	48,122	5.7
Camden	89	77	129,864	4.5
Candler	133	129	52,747	5.1
Carroll	18	20	439,756	3.6
Catoosa	30	37	223,521	5.3
Charlton	134	127	42,957	8.1
Chatham	4	4	1,920,574	3.3
Chattahoochee	54	153	164,233	0.4
Chattooga	52	57	137,943	4.1
Cherokee	21	21	342,322	5.5
Clarke	14	14	640,987	3.6
Clay	153	154	18,862	4.8
Clayton	9	6	1,593,156	3.7
Clinch	138	135	43,991	6.7
Cobb	3	3	3,184,306	3.2
Coffee	45	46	172,731	5.9
Colquitt	35	31	251,258	4.7
Columbia	25	40	288,789	4.9
Cook	88	97	84,911	6.5
Coweta	26	23	352,060	4.5
Crawford	130	137	46,589	8.0
Crisp	62	54	139,039	5.8
Dade	92	107	77,826	4.7
Dawson	150	116	37,225	6.5
Decatur	48	48	192,448	4.7
DeKalb	2	2	6,389,750	2.6
Dodge	75	88	115,165	5.6
Dooly	104	100	83,195	4.9
Dougherty	10	10	867,295	4.1
Douglas	20	18	463,431	4.6
Early	90	84	91,497	5.9
Echols	158	157	13,548	8.2
Effingham	71	75	142,364	4.8
Elbert	66	60	148,931	4.3
Emanuel	58	62	136,324	5.9
Evans	127	118	59,397	5.3
Fannin	82	83	88,035	5.8
Fayette	43	35	291,727	4.6
Floyd	11	11	703,756	2.6
Forsyth	44	36	211,334	5.5
Franklin	81	73	105,902	5.0
Fulton	1	1	7,435,475	1.1
Gilmer	102	96	81,819	4.6
Glascock	155	156	18,938	5.6
Glynn	19	16	542,537	4.0
Gordon	41	39	236,732	3.2
Grady	60	66	130,558	5.3
Greene	101	104	72,358	5.9
Gwinnett	7	5	1,568,812	4.1
Habersham	50	47	175,065	4.6
Hall	13	12	704,046	2.9
Hancock	114	132	52,780	7.1
Haralson	69	65	146,406	3.3
Harris	79	79	96,631	5.4
Hart	67	68	128,245	4.6
Heard	141	[illegible]	51,254	6.6
Henry	33	29	309,449	3.7
Houston	12	15	665,089	4.3
Irwin	119	121	58,109	5.3
Jackson	49	45	181,566	2.6
Jasper	132	125	58,705	4.4
Jeff Davis	99	95	92,588	4.6

(continued)

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TABLE 4 (CONTINUED)

COMPARATIVE RANKINGS, PERSONAL INCOME, AND LOCAL SCHOOL RECEIPTS FOR GEORGIA COUNTIES

County	Population Rank[a] (1980)	Master Economic Rank[b] (1981)	Total Personal Income[c] (1981) (In Thousands)	Local Receipts[d] as a % of Total Personal Income
Jefferson	70	72	123,702	4.8
Jenkins	123	124	94,916	6.6
Johnson	126	134	52,299	5.1
Jones	76	76	100,546	5.1
Lamar	93	98	76,884	5.4
Lanier	146	141	34,263	6.3
Laurens	31	28	279,966	5.1
Lee	96	101	67,030	7.3
Liberty	28	35	281,885	2.4
Lincoln	137	140	41,670	6.2
Long	151	151	29,782	5.8
Lowndes	15	17	511,071	2.5
Lumpkin	106	108	98,214	5.2
McDuffie	68	67	140,644	4.9
McIntosh	128	131	45,494	7.4
Macon	89	81	84,823	6.3
Madison	74	82	118,011	5.0
Marion	148	149	32,556	9.2
Meriwether	56	58	138,174	5.1
Miller	135	120	48,450	6.1
Mitchell	57	61	144,668	3.8
Monroe	83	64	117,182	3.8
Montgomery	136	146	43,708	5.3
Morgan	98	86	98,874	4.6
Murray	61	70	141,128	4.7
Muscogee	6	8	1,437,697	4.5
Newton	37	44	291,737	4.6
Oconee	91	93	82,110	5.7
Oglethorpe	122	120	57,606	6.1
Paulding	46	53	189,225	4.9
Peach	66	71	165,906	4.7
Pickens	97	85	88,109	4.9
Pierce	95	102	71,173	6.2
Pike	121	128	63,952	5.0
Polk	39	42	241,214	4.3
Pulaski	120	122	63,369	4.9
Putnam	109	90	87,342	4.4
Quitman	156	159	10,383	7.1
Rabun	107	92	93,876	5.8
Randolph	112	121	56,233	5.6
Richmond	5	7	1,496,123	4.0
Rockdale	32	25	329,431	5.0
Schley	154	152	24,766	4.1
Screven	82	80	92,384	5.9
Seminole	118	111	66,019	5.2
Spalding	23	26	417,450	4.0
Stephens	53	51	162,579	4.3
Stewart	144	142	34,429	9.1
Sumter	42	38	226,752	3.6
Talbot	140	143	40,110	6.4
Taliaferro	159	158	14,272	3.2
Tattnall	72	78	113,644	4.4
Taylor	129	112	55,963	5.5
Telfair	100	105	87,913	5.2
Terrell	94	106	77,127	4.9
Thomas	27	27	404,525	3.8
Tift	38	34	248,268	4.2
Toombs	51	52	152,437	3.6
Towns	147	136	31,382	3.4
Treutlen	143	147	34,566	6.1
Troup	22	19	419,543	1.5
Turner	113	117	73,726	5.0
Twiggs	117	123	47,133	7.0
Union	115	114	47,559	3.4
Upson	47	46	190,730	2.7
Walker	17	24	425,684	4.1
Walton	40	43	236,578	3.8
Ware	29	30	296,787	2.2
Warren	139	138	44,062	5.1
Washington	65	59	140,713	4.8
Wayne	59	49	164,952	4.6
Webster	157	155	15,077	5.3
Wheeler	149	150	29,031	6.6
White	111	99	82,695	6.4
Whitfield	16	13	584,614	2.8
Wilcox	131	145	47,927	6.2
Wilkes	103	91	84,935	4.4
Wilkinson	108	109	79,053	5.3
Worth	73	69	117,869	5.5
Georgia	--	--	49,802,686	4.0

[a]Based on population counts from U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population and Housing, Characteristics of the Population: Number of Inhabitants, Georgia (PC80-1-A12 Ga.).

[b]Georgia Department of Revenue; Statistical Report, 1982, Table 14.

[c]U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (April 1983).

[d]Based on local receipts for maintenance and operation, by local school system, 1981-82, provided by Georgia State Department of Education.

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tages below the state average; 129 (81.2 percent) were at or above that level. Although relatively few counties fell at either end of the range, the data show that for some counties local receipts for maintenance and operation of the school system are a surprisingly high proportion of personal income.

LOCAL ECONOMIC CLIMATES AND SCHOOL FUNDING

The county population rankings (for 1980) and economic rankings included in Table 4 fill in the picture of overall economic capacity suggested by tax digests and by the relationship of local receipts for school maintenance and operation to required local effort and to personal income. They suggest the generally close correspondence between population and master economic rank (a concept developed by Paul Mangold of the Georgia Department of Revenue to assess county standings, based on taxable sales, automobile registrations, adjusted gross income reported on Georgia income tax returns, and property and utility tax digests). In general, counties with larger populations have a higher concentration of the economic resources needed to support local school spending. They also have a larger number of students to be educated and relatively higher local burdens (since required local effort under APEG is based on the local percentage of total school tax digests). Conversely, very small school systems in rural counties receive higher proportions of their funds from state sources, but may lack the economic resources needed to supplement those funds. The level of economic resources does not, of course, entirely determine levels of local support for education. Decisions on school programs and funding are made in the social and political climate characteristic of each area, in which intangible factors (such as the overall educational attainment of residents and their goals for their children) may well play a part.

Table 5
Distribution of Local Receipts[a] as a Percent of Total Personal Income, By County, 1981

Local Receipts as % of Personal Income	Number of Counties	Percent of Counties
Less than 1.0	1	0.6
1.0-1.9	4	2.5
2.0-2.9	11	6.9
3.0-3.9	14	8.8
4.0-4.9	49	30.8
5.0-5.9	48	30.2
6.0-6.9	19	11.9
7.0-7.9	7	4.4
8.0-8.9	4	2.5
9.0+	2	1.3
Total[b]	159	99.9

[a]Local receipts for school maintenance and operation, by county school system.
[b]Percentages may not add to 100 because of rounding.

Source: Georgia Department of Education; U.S. Department of Commerce, Bureau of Economic Analysis.

CONCLUSIONS

The data discussed in Part I and amplified so far indicate that:

1) The wide variation in size among Georgia's local school systems is mirrored in the local resources available to support education.
2) In 1981-82, funding by state and federal programs reduced, but did not eliminate, differences in receipts and costs of education in local school systems.
3) Dropout rates indicate that many students leave school before graduation. To the extent that such students are unable to participate fully in economic life, resources committed to education are failing to achieve one goal of the state's educational efforts.
4) In 1981-82, most local systems went beyond minimum efforts by supplementing state-provided teachers' salaries; all systems raised at least twice the amount of local funds required under the state's APEG law.
5) In the same year, few local systems drew upon their tax bases to the extent allowed by state law. An intangible factor, the willingness of local taxpayers to fund educational programs, may explain variations in millage rates applied to tax bases of similar size. School tax millage rates also should be considered in relation to the total tax burden in an area.
6) Measures of economic capacity suggest that local support for education is influenced by the concentration of personal income and taxable economic resources in high-population metropolitan areas. The recent strengthening of statewide curriculum standards will encourage many smaller local systems to provide more advanced work, but it will not affect the distribution of resources. Small, relatively isolated systems still will find it difficult to attract and keep well-qualified staff. In systems of any size, local taxpayers must be convinced that support of comprehensive programs for all students at all levels is a wise economic investment.

Georgia's Budgetary Process

John H. Baskin, III

Georgia's current budgetary process evolved from more than fifty years of close interaction between the governor and the General Assembly. Until the early 1930s, the legislature dominated the appropriations process; however, in 1931, it created the budget bureau with the governor serving as ex officio director and the state auditor as assistant director. This gave the governor a considerable degree of power over the development of the budget. The 1931 Budget Act, which placed the governor and state auditor in charge of reviewing agency expenditure estimates and of preparing biennial draft appropriations bills, remained in effect until 1962, when it was completely redesigned.

One study of institutional roles in budget-making in Georgia gives credence to the notion of executive power. The authors concluded that:

> the governor's recommendation normally reduces the agency's request, but only agencies requesting increments receive increases;
>
> the legislature usually follows the pattern of the governor's recommendation in cutting agency requests and granting increases;
>
> the legislature generally responds to the governor's recommendation rather than the agency's request in determining appropriations;
>
> only weak relationships exist between the absolute size of an agency's request and the size of the governor's recommendations and legislature's appropriations; and
>
> budget reviews focus on the increment requested by an agency rather than on the total request.

These observations were consistent with data from the administrations of Carl Sanders and Lester Maddox. Because Maddox had not held an elected office prior to 1967, the study attributes Maddox's budgetary success more to the legislature's weakness than to the governor's strength.

By 1960, the General Assembly had begun to resist the governor's influence and sought ways to assert its fiscal authority. Four events set the stage for the 1962 overhaul of the budget system. First, in 1960 the General Assembly repealed the automatic appropriation of automobile registration revenues to the Highway Department. This increased the amount of revenue used for discretionary appropriation in the general appropriations act. Second, in the same year, Governor Ernest Vandiver suffered a heart attack which curtailed his control over the 1961 appropriations bill. Later that fall, powerful state auditor B.E. Thrasher, Jr. became ill and was unable to oversee the formation of the budget. This is noteworthy because he had virtually run the state budget from 1931 until 1960. Finally, the Georgia Education Association exerted extreme political pressure on the General Assembly to support a teacher's pay raise which was opposed by Governor Vandiver.

The ensuing conflict between the governor and the General Assembly led to the 1962 Budget Act that greatly enhanced the power of the General Assembly. The constitutional amendments of that year required that within five days after convening the legislature, the governor must submit a budget message, budget report, and a general appropriations bill to the General Assembly. Though he retained the title ex

officio director of the budget, the governor was stripped of his discretionary powers to dispense surplus funds without legislative approval. The 1962 Budget Act also included a description of the authorities and duties of the budget bureau, and the contents of the governor's budget report.

Since then, there have been three significant changes in the budget process. First, the Fiscal Affairs Subcommittee (FAS) was established in the General Assembly in 1966 for the purpose of reviewing and approving budget unit object class transfers recommended by the governor. Second, in 1971 Governor Jimmy Carter implemented a zero-base budgeting system to begin with the fiscal year 1973 budget. The third refinement in the budget process occurred in 1972 when the state constitution was amended to provide for an annual rather than biennial budget.

THE CURRENT BUDGET PROCESS

Georgia's fiscal year extends from July 1 through June 30. The budget cycle, however, covers a period of about thirty-six months during which the budget is constantly fine tuned or amended to reflect changing economic conditions and policy priorities. Basically, the budget process occurs in four stages: preparation and submission, approval, execution, and post audit.

Preparation and Submission Preliminary budget planning begins no later than March, two years prior to each fiscal year. Each agency decides upon its level of continued operation and upon new programs. Agency officials provide the agency's budget officer with cost estimates to be used in a preliminary budget. Unfortunately, as one researcher pointed out, much of this planning is based on little more than educated guesses about such crucial variables as federal funding, utility rates, future demand for agency services, and other highly uncertain factors, all of which are subject to fluctuations before the actual fiscal year begins.

During the summer months, agencies revise their estimates based on updated information and projections. Early in September of the previous fiscal year, requests for the current fiscal year are submitted to the Office of Planning and Budget (OPB) where budget analysts re-estimate projected costs of new programs and try to streamline agency operations. All agencies must be able to justify budget requests. Since the General Assembly is legally prohibited from appropriating state funds in excess of the revenue estimate presented in the governor's budget report, the OPB must trim agency revenue requests to match the revenue estimate before the governor reviews it. The official budget report for the upcoming fiscal year is sent to the General Assembly in mid-January.

Approval of Initial Appropriations When the appropriations bill is brought before the House of Representatives, hearings are held in which agency officials and members of the OPB explain their budget recommendations. Then, the House appropriations committee amends the bill and submits it to the Senate for further consideration.

If the Senate approves the bill without amendments, it is sent to the governor for his signature; otherwise, the bill is returned to the House for approval or rejection of the Senate's version. If the House rejects the Senate's appropriations bill, it is sent to a conference committee composed of members of the House and Senate.

The conference committee prepares a new bill which is sent back to the legislature. If the bill is not adopted by both Houses, it will return to the conference committee or a new conference committee will be formed and the process is repeated.

Budget Execution Budget execution begins in July when the Fiscal Affairs Subcommittee makes changes in the current budget. The changing demands for agency services or the receipt of unanticipated federal or non-state funds may make it necessary to revise the current general appropriations act even before the first day of the current FY.

At this time, agencies submit their proposed annual operating budgets to the OPB for review. When approved, these are used by the OPB as a basis for allocating funds. From July through December of the current FY, agencies continue to submit budget amendments to OPB to facilitate transfers of funds within object classes. For example, if one activity within a particular object class has a surplus, while another activity within the same class has a deficit, then the agency will request that OPB transfer funds from the first to the second activity.

If an emergency arises that requires additional funding before the General Assembly convenes in January, funds may be obtained from the Governor's Emergency Fund. This special fund, legally set at $3 million per year, can be allocated at the governor's discretion. Since the governor is reimbursed by the General Assembly for any expenditures, the emergency fund is usually kept at or near the level allowed. To obtain these funds, the head of the requesting agency must submit a written request to the governor.

By the middle of the current FY, when agencies have developed more refined estimates of costs for that year, they will submit to the OPB requests for legislative amendments to the general appropriations act. During this time there is considerable bargaining for funds for the current and previous fiscal years.

During November, the governor's staff develops a revised mid-year state revenue estimate based on the

Table 1
State Budget Data, 1973-1982

Year	Estimated Total ($)	Amended Total ($)	Actual Total ($)	Col. 3 – 1 ($000)	Col. 3 – 2 ($000)
1973	1,323,968,536	1,323,592,205	1,364,337,773	40,369	40,854
1974	1,661,689,409	1,666,683,648	1,651,271,946	– 29,582	–15,412
1975	1,619,685,802	1,663,819,548	1,660,900,118	41,215	– 2,919
1976	1,955,576,269	1,792,690,680	1,749,720,874	–205,856	–42,970
1977	1,922,000,000	1,897,921,960	1,837,607,020	– 84,393	–60,314
1978	2,129,144,627	2,222,554,134	2,197,726,699	68,582	–24,828
1979	2,419,953,332	2,531,900,860	2,585,266,526	165,313	53,366
1980	2,766,878,000	2,814,843,736	2,740,695,455	– 26,183	–74,148
1981	3,048,202,779	3,169,544,816	3,110,270,946	62,068	59,274
1982	3,419,011,890	3,522,172,436	3,432,222,552	13,211	–89,950

revenue commissioner's appraisal of revenue collections for the current FY. The governor uses this estimate to form the amended budget report for the current FY at the same time the budget report for the next FY is being prepared. The amended budget is sent to the General Assembly in January and usually passed by late February.

Post Audit The OPB sends the state auditor the final annual operating budgets of all the state agencies on the last day of the current fiscal year. These are the appropriations against which an agency's expenditures are audited.

WITHIN-YEAR APPROPRIATIONS CHANGES

The explanation of the budget process indicates that departmental appropriations are not fixed and that the level of appropriated funds is constantly changing. After a detailed examination of Georgia's budget procedures, one researcher has pinpointed thirteen of the more important causes of within-year budget changes. They are:

The extreme *time lag* that exists between initial agency requests and the end of the fiscal year for which funds were requested.

The *imprecision of forecasting and projection techniques* employed by budget officials to estimate costs and demands over a 21-month period.

The *inherent conservatism in the state's initial revenue estimation process* that frequently results in underestimation of state revenues and leads to availability of additional funds at mid-year.

Management factors, both good and bad, that lead to economies or inefficiencies in agency budget execution.

Underestimation of federal or other external funds which may be added to an agency's budget without legislative approval.

Changes in the costs of goods and services purchased by agencies, such as postage, telecommunications, vehicles, and utility rates.

Intentional "short funding" of programs in the general appropriations act with the plan to supplement such funds in the amended general appropriations act.

Revenue shortfalls in bad economic years that require across-the-board appropriations reductions.

Agency-specific, structural factors that affect demand for agency services, such as the impact of high unemployment on appropriations for Medicaid and of high crime rates on appropriations for offender rehabilitation.

Changes in political priorities within the executive or legislative branches.

Federal or local legislation requiring expenditures of state funds.

Natural disasters, bad weather, and other emergencies; and *court decisions* mandating additional expenditures.

From this, one may conclude that a more accurate initial estimate of state revenues will produce fewer mid-year revisions. This is true because an accurate initial revenue estimate eliminates the need for a mid-year budget cut which could disrupt an agency's development. However, all of this depends on how well the governor's staff has estimated state revenues.

The main problem faced in comparing revenue estimates with actual revenues is that of finding reliable figures on estimates. Accounting systems, definitions, and purposes for which information is used vary from one data source to another. For example, one analyst studying taxes and spending in Georgia noticed that three different sources gave three different totals for expenditures incurred by the state's university system. Which source was correct?

Table 1 contains data taken from the state budget

Figure 1: Initial, Revised, and Actual Revenue Estimates

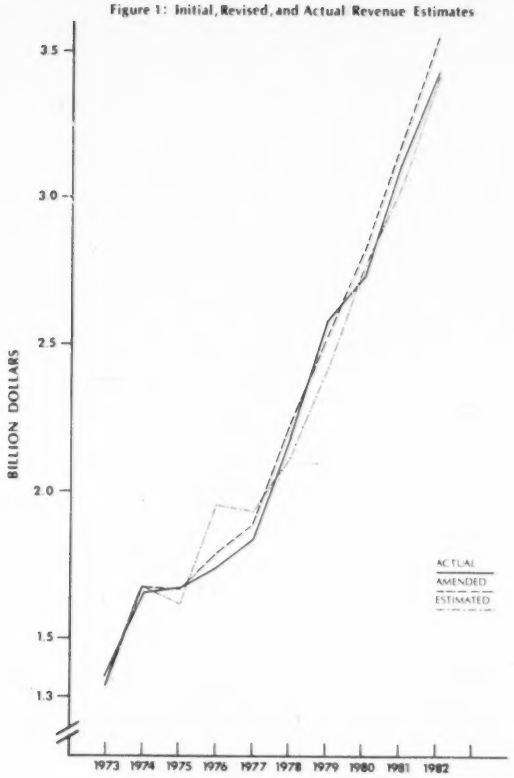
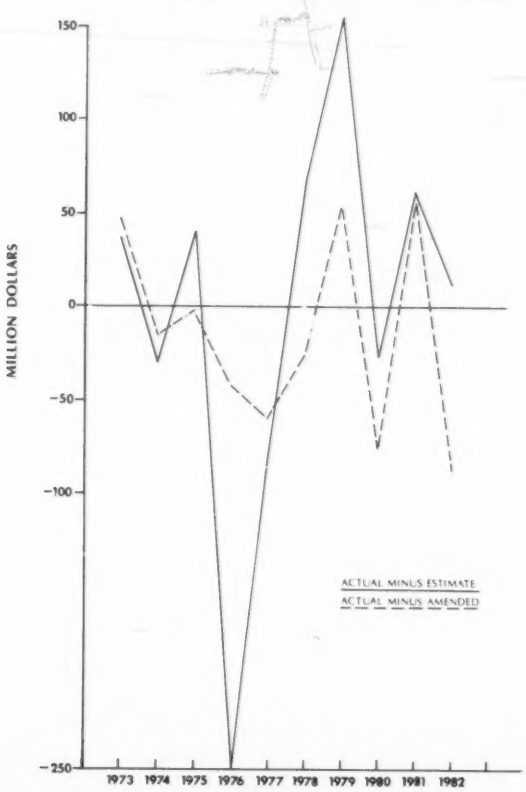


Figure 2: Differences Between Initial and Amended Estimates



report on the initial revenue forecast, the mid-year amended revenue estimate, and the actual revenues generated from 1973 to 1982. Primary interest lies in the differences between forecasts and actual revenues because these differences measure the amount of forecast error. The fourth and fifth columns are actual revenues minus estimated revenues and actual revenues minus amended revenues, respectively.

Figure 1 plots the initial, revised, and actual revenue estimates. In six of the ten years considered, actual revenues have exceeded estimated revenues. A possible explanation is that initial underestimation of revenues minimizes the risk that state agencies will be inconvenienced by a reduction in funds at mid-year. Figure 2 shows the differences between actual and initial estimates, and actual and revised estimates. The evidence presented in this article indicates that amended revenue figures are closer than the initial figures are to actual revenue levels. This is expected, however. A forecaster generally has a better idea today of what will happen tomorrow relative to yesterday. The accuracy of a forecast of a given time span generally increases as the forecasting horizon becomes shorter.

CONCLUSION

So the question "can initial revenue estimates be more accurate?" is difficult to answer for two reasons. First, very little information is available to the public indicating the nature of the assumptions and methods used to form revenue estimates. Perhaps more information or a better forecasting technique could be employed. Second, the amount of error one should be willing to accept when estimating annual revenues is unclear. Errors in excess of $150 million, as occurred in 1976 and 1979, are undoubtedly troublesome. The average error of initial estimates for the ten-year period studied was approximately $73.6 million. Unfortunately, there is no objective gauge to determine whether or not this average error is tolerable. In part, this is because it is extremely difficult to estimate losses in economic welfare or well-being incurred as a result of forecasting errors. So work remains to be done to determine the costs associated with budget revisions and to find ways to improve the accuracy of initial revenue estimates.

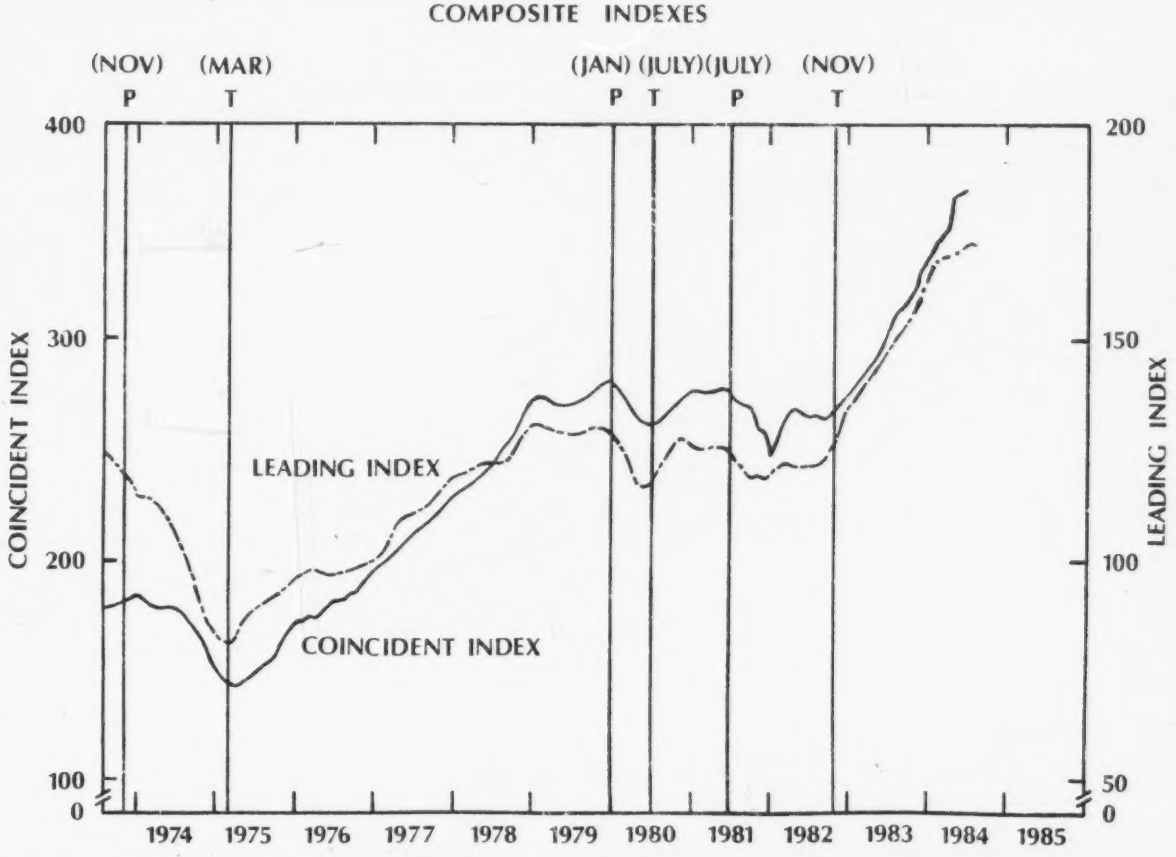
Composite Indexes of Leading and Coincident Georgia Economic Indicators

The coincident indicator jumped 4.5 percent in April, fueled by seasonally adjusted increases in all of the components—nonagricultural employment, real retail sales, and average weekly earnings in manufacturing. Looking at these, it is clear that most of the support underlying the monthly advance came from the volatile real retail sales series, which soared 13.2 percent in April following the 3.4 percent decline in the preceding month.

The leading index advanced a modest 0.4 percent and indicates that the state's economic rate of growth may be slowing somewhat, relative to the blistering pace characteristic of recent months. On a seasonally adjusted basis, initial unemployment claims dropped 15.3 percent, but the figures for new housing permits and the index of Help Wanted Advertisements, Atlanta fell by 1.7 and 0.8 percent, respectively.

The May indicators continued to signal a shift to more moderate growth. The coincident indicator rose a modest 0.7 percent due to declines in real retail sales and real average weekly earnings in manufacturing. Nonagricultural employment advanced by 0.4 percent.

Meanwhile, the index of leading indicators posted the first decline in two years, dropping 0.7 percent below April's figure. The drop resulted from a 19 percent seasonally adjusted increase in initial unemployment claims accompained by moderate monthly declines in new housing permits and the index of Help Wanted Advertisements in Atlanta.



Note: P (peak) indicates the end of general business expansion at the national level and the beginning of recession; T (trough) indicates the end of general business recession at the national level and the beginning of expansion.

GEORGIA BUSINESS STATISTICS

SERIES	MAY 1984	APR 1984	MAR 1984	MAY 1983
Georgia Leading Indicators Index[1] (1969=100)	167.70	168.94	168.57	145.48
Georgia Coincident Indicators Index[1] (1969=100)	362.82	360.34	350.65	301.49
Nonagricultural Employment[2] (thousands)	2387.8[p]	2375.9	2343.7	2266.3
Manufacturing Employment[2] (thousands)	530.6[p]	527.9	524.9	505.9
Average Weekly Earnings, Manufacturing[2] (dollars)	309.48[p]	312.98	308.10	286.82
Help Wanted Advertising, Atlanta Index[3] (1967=100)	258	259	261	168
Taxable Retail Sales[4] ($ millions)	2993.5	3061.8	2737.0	2555.7
Building Permits[5]				
Residential Housing Units, Private (thousands)	7.0	7.3	6.6	6.9
Value of Residential Housing ($ thousands)	281234	272236	227828	243798
Value of Nonresidential Construction ($ thousands)	158635	127344	196625	92517
Industrial Buildings	14513	12875	15235	17573
Office, Bank and Other Professional Buildings	77533	31267	77533	18167
Stores and Other Merchantile Buildings	26486	22704	19741	16532
Other	70006	60498	84116	40245
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December, 1977 = 100)	-	167.3	-	160.2[a]
South/Population more than 1,250,000	-	166.3	-	159.1[a]
South/Population 385,000 to 1,250,000	-	168.2	-	160.9[a]
South/Population 75,000 to 385,000	-	166.9	-	160.2[a]
South/Population 2,500 to 75,000	-	168.1	-	160.8[a]
Atlanta (1967=100)	-	311.1	-	297.6[a]
Prices Received by Farmers, Georgia Index[7] (1977=100)	136[r]	144	144	126
	1984:I	1983:IV	1983:III	1983:II
Total Personal Income[8] ($ millions)	62839	61025	59613	58459

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[1] Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2] Labor Information Systems, Georgia Department of Labor

[3] Series published by The Conference Board, Inc.

[4] Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue

[5] U.S. Department of Commerce, Bureau of the Census

[6] U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office

[7] Georgia Department of Agriculture, Georgia Crop Reporting Service

[8] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

[a] April, 1983

[r] Revised

[p] Preliminary

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Economic Outlook: Third Quarter 1984

Phillip A. Cartwright

Economic activity continues to expand at a spectacular pace—despite the forecasts of baffled economists and Wall Street skeptics. Real gross national product, the nation's output of goods and services, increased 10.1 percent in the first quarter, and according to preliminary estimates released by the Commerce Department, GNP rose 7.1 percent in the second quarter. Meanwhile, inflation slowed to 3.3 percent during the April to June period, down from 3.9 percent in the first quarter. The civilian unemployment rate of 7.6 percent in the second quarter was significantly below the 10.1 percent figure posted in the second quarter of 1983.

The economic expansion has not left Georgia behind. The state's economy has been growing at a vigorous pace since the third quarter of 1982. After adjustment for inflation, nonfarm personal income rose by 6 percent in the first quarter of 1984 relative to the same quarter one year ago. The personal income figure advanced 4.5 percent at the national level. Owing to the variability of farm income, nonfarm personal income is preferred to total personal income as a measure of general economic activity in a state or region.

Labor market conditions remain favorable. The table indicates that except for government services, there were healthy employment gains across all sectors of the state's economy during the first half of the year. The average unemployment rate for the state over the first two quarters was 6.3 percent, a drop of 2 percent from the same period one year ago. Overall, employment growth in the nonagricultural sector is expected to remain strong throughout the remainder of the year, however, the rate of growth in some industries is likely to diminish. For example, there are indications that some markets for textile products such as housing and automobiles are weakening, so it is doubtful that the industry will show significant employment gains during the third and fourth quarters.

Other indicators of economic activity reflect the fundamental strength underlying conditions at the state level. On a nominal dollar basis, total taxable sales rose 17.9 percent during the first five months of the year relative to the first five months of 1983. The change translates into a 12.9 percent increase after adjustment for inflation. Measured against the figure posted during the first half of 1983, state revenue re-

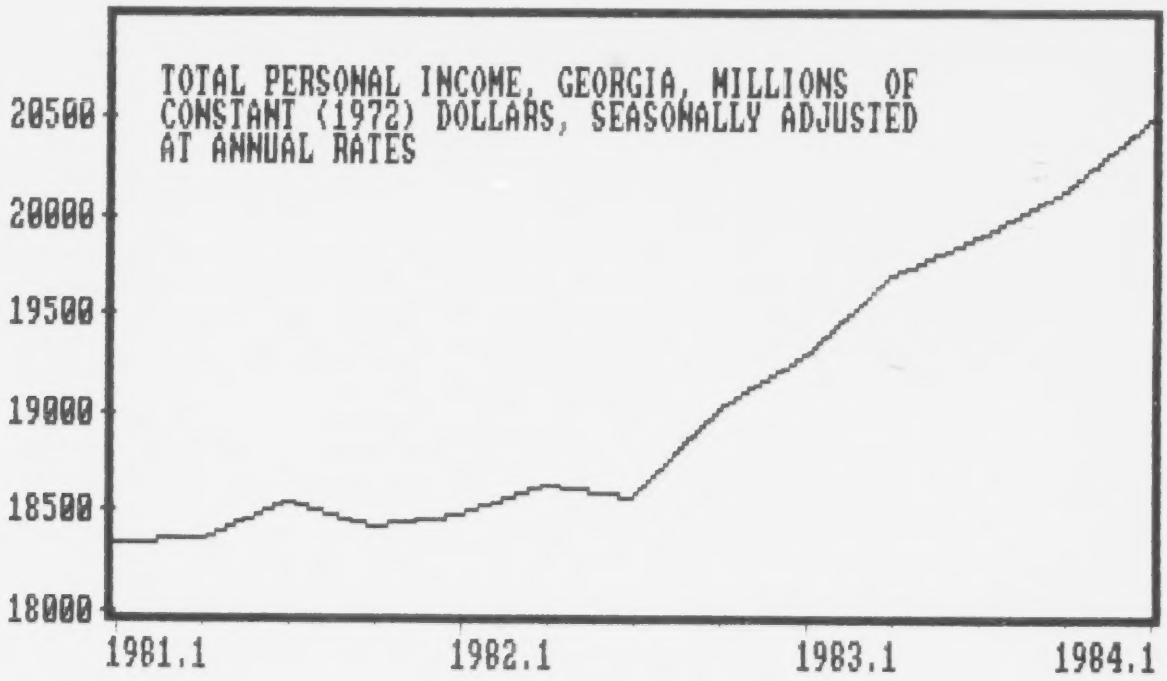
State Nonagricultural Employment
Monthly Averages, January to June 1983 and 1984
(000s)

Sector	1983	1984	Percentage Change
Nonagricultural Employment	2236.0	2356.9	5.4
Mining	7.2	7.8	8.3
Contract Construction	103.6	123.5	19.2
Manufacturing	499.5	526.8	5.5
Transportation, Public Utilities	146.1	151.4	3.6
Wholesale and Retail Trade	531.7	571.2	7.4
Finance, Insurance, and Real Estate	119.6	124.9	4.4
Services	386.9	412.0	6.5
Government	441.4	439.3	– 0.5

corded real growth of about 10.3 percent during the period January to June 1984.

Over the remainder of 1984, the growth rate of economic activity at the national and state levels is expected to moderate somewhat. Evidence that the economic pace may be slowing down at the national level is provided by the government's index of leading economic indicators which fell 0.8 percent in July. A drop in building permits was the main reason for the decline. At the state level, the index of leading indicators published by the Georgia Economic Forecasting Project declined in May, dropping 0.7 percent below the figure posted in April. The decline in the index is the first in two years, and may be taken as a sign that economic activity in Georgia is moderating. However, a decrease in a single month does not constitute a trend, so at this point, the sign must be regarded as ambiguous. By historical standards, economic growth during 1984 in the U.S. and in Georgia will be exceptional. The outlook for prices remains favorable. Inflation is not expected to accelerate significantly over the next six months.

The combination of large federal budget deficits, high interest rates, and merchandise trade deficits is a dark cloud on the economic horizon. The outlook beyond 1984 depends in large part upon congressional success in implementing policies directed toward reducing the budget deficits. Provided that a credible mix of fiscal policies can be implemented and assuming that the Federal Reserve responds favorably by accommodating a moderate rate of real economic growth without permitting a resurgence of inflation, the economic expansion at the national and state levels is likely to continue at least through 1985.



Manufacturing Exports From Georgia

Cletus C. Coughlin

A recent article in *Georgia Business and Economic Conditions* highlighted the importance of international business for economic prosperity in the United States. To continue this theme, this article will focus upon one aspect of Georgia's involvement in international business, exports of manufactured goods. The importance of manufactured exports for Georgia; Georgia's performance relative to all other states and, in particular, to other southeastern states; and the reasons underlying Georgia's performance will be the primary topics discussed.

The most important aspect of international business for Georgia is the export of manufactured goods. In 1981, the total value of export-related manufacturers' shipments was $4,981 million. This figure represented 10.5 percent of the total value of manufacturers' shipments. The exports translated into 51,400 jobs in manufacturing for Georgians; however, the employment impact was not restricted to manufacturing industries. In fact, an additional 54,700 jobs in nonmanufacturing industries such as business services, transportation, mining, and agriculture were directly related to manufactured exports. These 106,100 jobs were 4.3 percent of Georgia's total civilian employment.

GEORGIA'S EXPORT PERFORMANCE

While the preceding figures suggest the overall importance of manufactured exports, an important issue is Georgia's performance relative to other states. Without question, it has been below average. For example, in 1981, manufactured exports as a percentage of manufacturers' shipments totaled 10.5 percent, while the average for the United States was 13.4 percent. In terms of manufacturing employment, 9.7 percent of Georgia's employment was accounted for by exports, while the national average was 12.8 percent. Both sets of figures suggest that Georgia is below average in terms of international competitiveness.

An industry by industry comparison of Georgia's export related shipments to national averages yields a similar conclusion. Table 1 contains data which allows for such a comparison. Using the Standard Industrial Classification (SIC) scheme, it is apparent that in industries where U.S. exports are largest (machinery, except electric; transportation equipment; and chemicals and allied products), Georgia's products are not as internationally competitive as the U.S. in general. In each case, Georgia's exports as a percentage of total shipments are below the national averages. Only in paper and allied products and the primary metal industries did Georgia exceed the national averages. The greatest value of exports occurred in textile mill products, an industry dependent upon relatively unskilled labor and currently subject to intense foreign competition.

Additional information on Georgia's relative performance is provided in Table 2. States in the Southeast are ranked in terms of total manufactured exports on both a national and a regional basis. The figures indicate that Georgia is twenty-first (out of 50) in terms of total manufactured exports in the U.S. Relative to states in the Southeast, Georgia ranks below North Carolina, Florida, and Tennessee and above South Carolina, Alabama, and Mississippi. However, these rankings are somewhat misleading because state size is ignored. Obviously, states with larger labor forces and other resources are likely to have a greater volume of exports. Consequently, a second ranking on the basis of exports per state employment is provided.

Table 1
Shipments by Manufacturers

Industry	Export Related Shipments		Percent of Total Shipments	
	Georgia ($ million)	U.S. ($ million)	Georgia	U.S.
Food, kindred products	330	17662	4.8	6.4
Textile mill products	975	5491	10.9	10.9
Apparel, other textiles	102	1996	3.5	4.0
Lumber, wood products	156	5478	7.8	11.7
Paper, allied products	629	10470	14.0	12.5
Printing, publishing	21	2350	1.7	3.0
Chemicals, allied products	613	36029	14.9	19.9
Petroleum, coal products	20	14180	5.1	6.3
Leather, leather products	4	631	3.8	6.0
Stone, clay, glass products	109	4333	8.0	9.0
Primary metals	365	27449	19.7	19.3
Fabricated metals	150	15352	8.6	12.4
Machinery, except electric	285	48081	17.8	23.8
Electric equipment	218	23324	11.1	16.6
Transportation equipment	761	37623	15.6	18.3
Miscellaneous	30	2857	6.1	10.6

Tobacco products; furniture and fixtures; rubber; miscellaneous plastics; instruments and related products were unavailable for Georgia.

Source: U.S. Department of Commerce, *Annual Survey of Manufactures—Origins of Exports*, 1981.

Table 2
Relative Export Performance of Southeastern States

State	Total Exports		Exports Per State Employment	
	National	Southeast	National	Southeast
Georgia	21	4	38	6
Alabama	26	6	35	5
Florida	15	2	39	7
Mississippi	32	7	33	4
North Carolina	11	1	12	1
South Carolina	23	5	13	2
Tennessee	17	3	17	3

Source: Department of Commerce, *Annual Survey of Manufactures—Origin of Exports*, 1981.

This adjustment indicates that Georgia's performance is definitely below average. In terms of national ranking, Georgia fell from twenty-first to thirty-eighth. Within the Southeast, Georgia's ranking fell to sixth.

CONCLUSIONS

In light of the generally favorable business environment in Georgia, what accounts for its relatively poor international performance? A recent study conducted by the author and a colleague found that human capital per employee and physical capital per employee were the key determinants of state export performance once the influence of state size had been incorporated. In these terms, Georgia ranked thirty-fourth. Georgia's low ranking in terms of human capital per employee is a direct reflection of the relatively low skill levels of its employees. Once again, improvement in this area requires a commitment to an upgrading of the educational system. Similar to economic historian Albert Niemi's conclusion that Georgia's future economic growth will be highly dependent upon a well-educated labor force, it is clear that the state's future export performance is also dependent upon that same factor.

Cletus C. Coughlin is assistant professor of economics at The University of Georgia.

Personal Income in Georgia: The Early 1980s

Part 1

Suzanne A. Lindsay

Revised estimates of total personal income and per capita personal income released in August 1984 by the U.S. Department of Commerce indicate the growth of the state's economy through 1983, relative to the levels for those measures achieved in 1970 and 1980. Initial metropolitan statistical area (MSA) and county estimates, available only through 1982, show varying intrastate patterns of growth, especially during 1980-1982, but progress relative to national values over 1970-1982. At all levels, however, adjustment for inflation reveals that real economic growth was much lower than implied by current-dollar figures.

In current (nominal) dollars, total personal income in the state grew from $15,303 million in 1970 to $43,969 million in 1980, an annual average rate of growth of 11.1 percent over the decade. By 1982, it reached $54,425 million (an annual average growth rate of 11.1 percent for 1970-1982), and climbed to $59,494 million in 1983 (an 11 percent growth rate for 1970-1983). Over 1980-1983—years which saw recession and recovery—the annual average rate of growth was 10.6 percent. For 1982-1983, the rate of growth was 9.3 percent, well ahead of the U.S. rate of 6.2 percent. Georgia's total personal income outperformed that of the U.S. as a whole during each period (see Tables 1 and 2), although in real terms, annual average growth rates were much lower than those computed for nominal estimates.

The state's share of national total personal income increased slightly during the early 1980s, from 1.9 percent in 1970 to 2 percent in 1980, 2.1 percent in 1982, and 2.2 percent in 1983. Compared to the nation as a whole, Georgia's TPI grew more rapidly in both nominal and real terms during 1970-1980, and suffered less decline during 1980-1982 when real TPI for the nation had an annual average growth rate of less than one percent.

Because data for 1983 are not yet available, personal income growth in Georgia's eight metropolitan statistical areas can be examined only through 1982. Initial estimates for 1982 show that metropolitan area dominance of total personal income increased slightly in the early 1980s. The 38 metropolitan counties had 69.3 percent of state TPI in 1970 and 69.7 percent in both 1981 and 1982. The 121 non-metropolitan counties shared 30.7 percent of state TPI in 1970, and 30.3 percent in 1981 and 1982. When the share of total personal income in all metropolitan counties is computed for individual MSAs, the continued relative growth of the Atlanta area is apparent, with most other MSAs losing ground slightly (Table 3).

COUNTY PERSONAL INCOME

Both nominal and real total personal income, and the annual average growth rates based upon them, varied greatly for individual counties. Table 4 lists current dollar TPI for each MSA and county for 1970, 1980, and 1982, and annual average growth rates for three periods: 1970-1980, 1970-1982, and 1980-1982.* Table 5 reports the real (1967) dollar equivalents for each area, and annual average growth rates based on inflation-adjusted TPI.

The range of growth in personal income was substantial. For 1970-1980, Fayette County had the high-

*Dollar amounts in Table 4 are first-round BEA estimates published in April 1984; as given in these tables and the accompanying maps, state totals for 1980 and 1982 and the rates based upon them differ slightly from the revised estimates published in August 1984. The first-round state estimates have been retained here for internal consistency with local area data.

Table 1
Nominal and Real Total Personal Income, U.S. and Georgia, Selected Years

Year	Nominal ($ mil.)		Real (1967 $ mil.)	
	U.S.	Georgia	U.S.	Georgia
1970	803,922	15,303	691,248.5	13,158.2
1980	2,156,710	43,969	873,869.5	17,815.6
1982	2,575,831	54,425	890,982.7	18,825.7
1983	2,734,122	59,494	916,260.7	19,937.7

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, August 1984, personal income estimates, adjusted for inflation by the CPI-U, U.S. all cities, all items annual averages for the respective years.

Table 2
Annual Average Rates of Growth in Nominal and Real* Total Personal Income, U.S. and Georgia, Selected Periods

Period	Nominal TPI		Real TPI	
	U.S.	Georgia	U.S.	Georgia
1970-80	10.37	11.13	2.37	3.08
1980-83	8.23	10.61	1.59	3.82
1970-83	9.88	11.01	2.19	3.25
1970-82	10.19	11.15	2.14	3.03
1980-82	9.29	11.26	0.97	2.80
1982-83	6.15	9.31	2.84	5.91

*1967 $

Source: See Table 1.

est annual average rate of growth (20.4 percent in nominal amounts; 11.6 percent in real growth), and Chattahoochee County had the lowest (a nominal annual average rate of growth of 5.6 percent, equivalent to -2 percent real annual average growth). During 1970-1982, Fayette County also led with an annual average rate of growth of 19.4 percent in nominal TPI and of 10.7 percent in real TPI, and Chattahoochee County again trailed, with an annual average rate of growth of 6.2 percent in nominal TPI and -1.6 percent in real TPI.

In the short run, however, annual average rates of growth were often very different from those for longer periods, both for individual counties and across larger areas of the state. Many counties showed a rapid increase in total personal income and corresponding rates of growth; Burke County, with an annual average rate of growth for 1980-1982 of 30.1 percent in nominal TPI and 20.2 percent in real TPI, was the most rapidly growing local area. In real dollars, however, many other counties experienced negative growth over that period. The lowest real annual average rate of growth in the state was that of Macon County, where an annual average rate of growth of 3.3 percent in nominal TPI translated to a -4.6 percent annual average rate in real TPI.

Table 3
MSA Shares of Total Personal Income, 1970, 1980 and 1982 (percent)

MSA	1970	1980	1982
Albany	2.63	2.70	2.66
Athens	2.86	2.99	2.95
Atlanta	65.69	68.87	69.07
Augusta, GA-SC*	6.16	5.68	5.83
Chattanooga, TN-GA*	2.42	2.20	2.06
Columbus, GA-AL*	6.08	4.74	4.61
Macon-Warner Robins	7.72	6.93	6.91
Savannah	6.47	5.93	5.95
	100.03[a]	100.04[a]	100.04[a]
All MSA Counties, GA	100.0	100.0	100.0

*Georgia counties only

[a]Percentages may not add to 100 because of rounding.

Source: Based on data from U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, "Total Personal Income in Metropolitan Areas, Counties, and Independent Cities, in Selected Years," April 1984 (residence adjusted).

Figure 1
Annual Average Growth Rates
in Real Total Personal Income
1980-1982

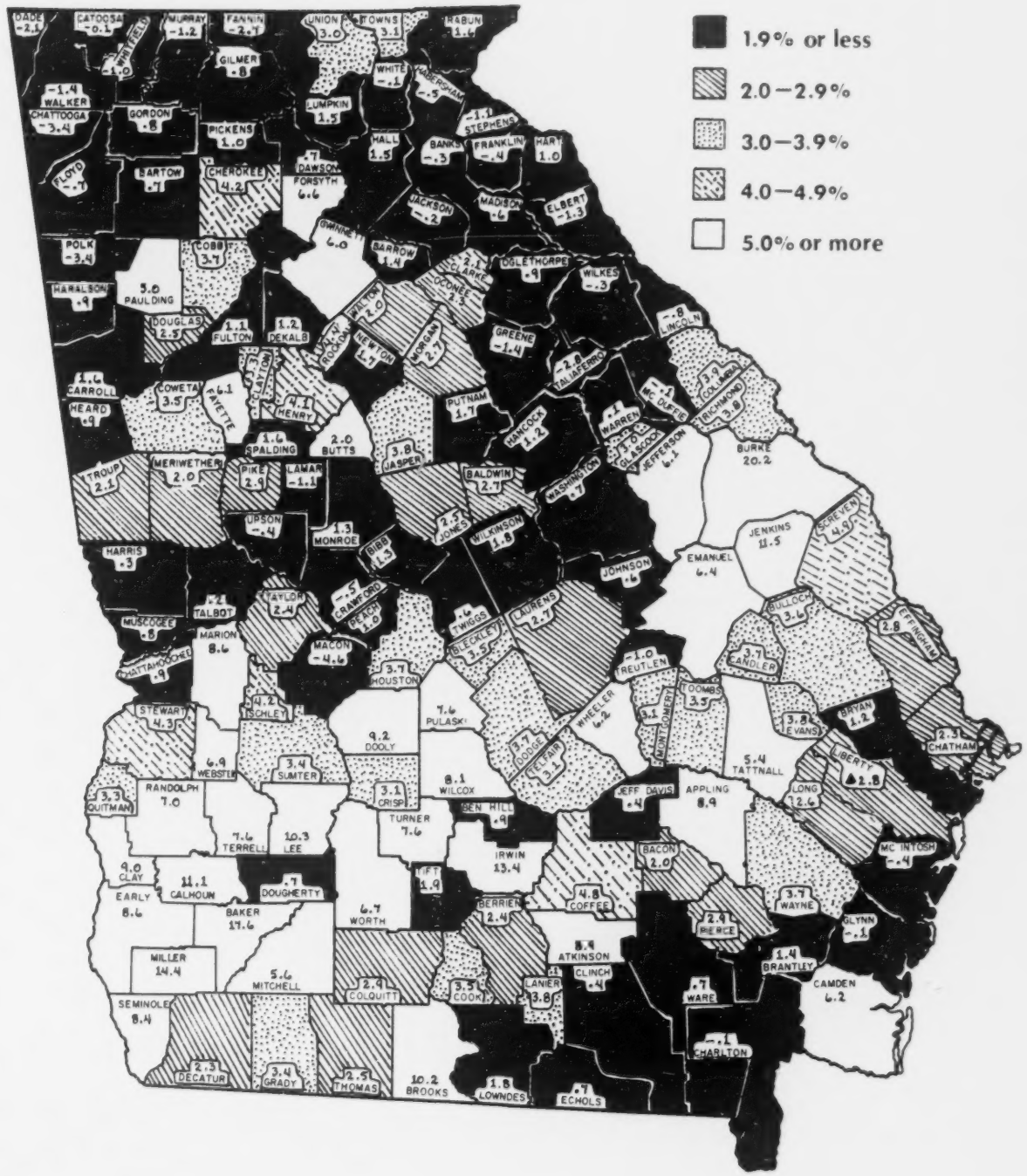


TABLE 4

NOMINAL TOTAL PERSONAL INCOME AND ANNUAL AVERAGE RATES OF GROWTH, SELECTED YEARS, FOR GEORGIA, METROPOLITAN AREAS, AND COUNTIES

AREA	TOTAL PERSONAL INCOME ($ MIL., CURRENT) 1970	1980	1982	ANNUAL AVERAGE RATE OF GROWTH (%) 1970-1980	1970-1982	1980-1982
Georgia	15,303.0	44,186.7	54,011.3	11.2	11.1	10.6
Metropolitan Areas:						
Albany, GA	278.7	830.6	998.2	11.5	11.2	9.6
Athens, GA	303.1	919.0	1,109.4	11.7	11.4	9.9
Atlanta, GA	6,964.6	21,205.1	25,997.4	11.8	11.6	10.7
Augusta, GA-SC	949.4	2,631.3	3,265.9	10.7	10.8	11.4
Chattanooga, TN-GA	1,274.7	3,434.1	3,936.3	10.4	9.9	7.1
Columbus, GA-AL	753.0	1,758.4	2,082.5	8.9	8.8	8.8
Macon-Warner Robins, GA	818.2	2,131.3	2,598.2	10.0	10.1	10.4
Savannah, GA	685.2	1,825.8	2,239.5	10.3	10.4	10.8
Counties						
Metropolitan Portion	10,602.7	30,791.6	37,644.1	11.3	11.1	10.6
Nonmetropolitan Portion	4,700.3	13,395.1	16,367.2	11.0	11.0	10.5
Appling	29.7	92.8	128.9	12.1	13.0	17.9
Atkinson	11.8	30.8	42.8	10.1	11.3	17.9
Bacon	20.8	54.1	65.9	10.0	10.1	10.4
Baker	7.4	16.0	25.9	8.0	11.0	27.2
Baldwin	75.0	233.6	288.4	12.0	11.9	11.1
Banks	15.1	45.8	53.3	11.7	11.1	7.9
Barrow	49.8	155.4	187.2	12.1	11.7	9.8
Bartow	99.1	298.0	353.8	11.6	11.2	9.0
Ben Hill	34.0	101.4	120.9	11.5	11.2	9.2
Berrien	31.1	82.7	101.6	10.3	10.4	10.8
Bibb	511.6	1,305.8	1,570.1	9.8	9.8	9.7
Bleckley	26.1	65.5	82.2	9.6	10.0	12.0
Brantley	14.5	41.5	50.0	11.1	10.9	9.8
Brooks	35.0	74.3	105.6	7.8	9.6	19.2
Bryan	14.4	53.8	64.6	14.1	13.3	9.6
Bulloch	71.3	224.6	282.6	12.2	12.2	12.2
Burke	36.0	107.0	181.2	11.5	14.4	30.1
Butts	26.7	83.5	101.8	12.1	11.8	10.4
Calhoun	13.3	33.7	48.7	9.7	11.4	20.2
Camden	30.1	105.5	139.3	13.4	13.6	14.9
Candler	17.3	44.4	55.9	9.9	10.3	12.2
Carroll	124.6	393.6	476.4	12.2	11.8	10.0
Catoosa	68.8	206.8	242.1	11.6	11.1	8.2
Charlton	12.5	38.9	45.5	12.0	11.4	8.2
Chatham	645.9	1,705.8	2,091.2	10.2	10.3	10.7
Chattahoochee	92.0	158.8	189.3	5.6	6.2	9.2
Chattooga	53.5	133.0	145.5	9.5	8.7	4.6
Cherokee	81.2	311.4	396.0	14.4	14.1	12.8
Clarke	190.1	571.8	698.2	11.6	11.5	10.5
Clay	6.6	15.1	21.0	8.6	10.1	17.9
Clayton	368.0	1,411.7	1,763.7	14.4	14.0	11.8
Clinch	14.4	38.8	45.8	10.4	10.1	8.6
Cobb	789.6	2,795.6	3,518.6	13.5	13.3	12.2
Coffee	58.5	147.5	189.6	9.7	10.3	13.4
Colquitt	88.6	218.5	271.2	9.4	9.8	11.4
Columbia	58.1	261.7	330.9	16.2	15.6	12.4
Cook	32.1	73.9	92.8	8.7	9.2	12.1
Coweta	100.1	311.2	390.3	12.0	12.0	12.0
Crawford	12.5	33.9	39.3	10.5	10.0	7.7
Crisp	44.8	118.6	147.6	10.2	10.4	11.6
Dade	23.6	68.8	77.3	11.3	10.4	6.0
Dawson	8.8	33.5	39.8	14.3	13.4	9.0
Decatur	51.2	158.7	194.4	12.0	11.8	10.7
DeKalb	1,965.2	5,703.1	6,846.0	11.2	11.0	9.6
Dodge	39.2	95.4	120.1	9.3	9.8	12.2
Dooly	27.5	65.9	92.0	9.1	10.6	18.2
Dougherty	262.0	778.5	924.0	11.5	11.1	8.9
Douglas	91.1	408.2	502.2	16.2	15.3	10.9
Early	29.1	73.1	100.9	9.6	10.9	17.5
Echols	4.2	12.3	14.6	11.3	10.9	8.9
Effingham	39.2	119.9	148.3	11.8	11.7	11.2
Elbert	47.2	135.5	154.5	11.1	10.4	6.8
Emanuel	42.5	114.9	152.3	10.5	11.2	15.1
Evans	18.4	50.8	64.1	10.7	11.0	12.3
Fannin	29.1	83.6	92.8	11.1	10.1	5.4
Fayette	40.4	257.9	339.9	20.4	19.4	14.8
Floyd	248.3	643.3	743.3	10.0	9.6	7.5
Forsyth	47.0	184.0	244.9	14.6	14.7	15.4
Franklin	33.2	94.1	109.4	11.0	10.4	7.8
Fulton	2,720.2	6,633.3	7,938.6	9.3	9.3	9.4

(continued)

TABLE 4 (CONTINUED)

NOMINAL TOTAL PERSONAL INCOME AND ANNUAL AVERAGE RATES OF GROWTH, SELECTED YEARS, FOR GEORGIA, METROPOLITAN AREAS, AND COUNTIES

AREA	TOTAL PERSONAL INCOME ($ MIL., CURRENT) 1970	1980	1982	ANNUAL AVERAGE RATE OF GROWTH (%) 1970-1980	1970-1982	1980-1982
Gilmer	22.0	71.3	84.9	12.5	11.9	9.1
Glascock	6.2	16.4	20.4	10.2	10.4	11.5
Glynn	169.0	485.2	567.2	11.1	10.6	8.1
Gordon	70.7	207.6	247.3	11.4	11.0	9.1
Grady	41.1	113.6	142.2	10.7	10.9	11.9
Greene	20.9	67.3	76.6	12.4	11.4	6.7
Gwinnett	245.3	1,373.0	1,808.7	18.8	18.1	14.8
Habersham	49.8	159.8	185.4	12.4	11.6	7.7
Hall	190.0	628.8	759.3	12.7	12.2	9.9
Hancock	16.8	46.7	56.0	10.8	10.6	9.5
Haralson	51.3	133.1	158.8	10.0	9.9	9.2
Harris	29.1	90.2	106.2	12.0	11.4	8.5
Hart	40.7	115.6	138.0	11.0	10.7	9.3
Heard	12.2	45.3	54.0	14.0	13.2	9.2
Henry	69.9	275.2	349.6	14.7	14.4	12.7
Houston	233.8	592.9	746.8	9.8	10.2	12.2
Irwin	20.9	44.3	66.7	7.8	10.2	22.7
Jackson	57.2	166.6	194.2	11.3	10.7	8.0
Jasper	16.0	52.4	66.1	12.6	12.5	12.3
Jeff Davis	25.1	79.1	93.4	12.2	11.6	8.7
Jefferson	39.4	105.9	139.7	10.4	11.1	14.9
Jenkins	17.5	46.8	68.2	10.3	12.0	20.7
Johnson	16.6	47.3	56.1	11.0	10.7	8.9
Jones	27.6	89.4	110.0	12.5	12.2	10.9
Lamar	26.7	72.7	83.3	10.5	9.9	7.0
Lanier	11.9	28.7	36.2	9.2	9.7	12.3
Laurens	85.8	247.1	305.4	11.2	11.2	11.2
Lee	16.7	52.1	74.2	12.1	13.2	19.3
Liberty[a]	44.8	268.3	332.1	19.6	18.2	11.3
Lincoln	12.1	39.2	45.2	12.5	11.6	7.4
Long	8.1	26.1	32.2	12.4	12.2	11.1
Lowndes	172.0	454.3	551.3	10.2	10.2	10.2
Lumpkin	18.2	58.8	70.9	12.4	12.0	9.8
McDuffie	40.8	123.9	144.9	11.7	11.1	8.1
McIntosh	12.9	41.0	47.6	12.3	11.5	7.7
Macon	28.7	84.2	89.8	11.4	10.0	3.3
Madison	34.6	106.8	126.5	11.9	11.4	8.8
Marion	11.0	28.1	38.8	9.8	11.1	17.5
Meriwether	48.2	122.3	149.0	9.8	9.9	10.4
Miller	15.1	33.5	51.4	8.3	10.7	23.9
Mitchell	47.0	116.1	151.8	9.5	10.3	14.3
Monroe	29.7	102.1	122.8	13.1	12.6	9.7
Montgomery	14.4	38.8	48.3	10.4	10.6	11.6
Morgan	26.5	84.9	104.8	12.3	12.1	11.1
Murray	32.2	127.1	145.3	14.7	13.4	6.9
Muscogee	551.8	1,299.6	1,545.3	8.9	9.0	9.0
Newton	77.9	258.4	313.2	12.7	12.3	10.1
Oconee	21.1	73.8	90.5	13.3	12.9	10.7
Oglethorpe	16.3	47.5	56.6	11.3	10.9	9.2
Paulding	45.8	165.9	214.2	13.7	13.7	13.6
Peach	45.2	143.3	171.4	12.2	11.7	9.4
Pickens	25.7	78.0	93.2	11.7	11.3	9.3
Pierce	25.6	61.3	76.1	9.1	9.5	11.4
Pike	18.6	55.6	69.0	11.6	11.5	11.4
Polk	79.9	222.1	242.6	10.8	9.7	4.5
Pulaski	24.4	52.2	70.8	7.9	9.3	16.5
Putnam	21.8	78.3	94.9	13.6	13.0	10.1
Quitman	3.2	8.8	11.0	10.6	10.8	11.8
Rabun	19.1	58.5	70.8	11.8	11.5	10.0
Randolph	18.9	43.6	58.5	8.7	9.9	15.8
Richmond	554.3	1,360.7	1,716.6	9.4	9.9	12.3
Rockdale	57.9	291.0	371.7	17.5	16.8	13.0
Schley	8.0	20.3	25.8	9.8	10.2	12.7
Screven	27.6	77.8	100.3	10.9	11.4	13.5
Seminole	18.5	51.6	71.0	10.8	11.9	17.3
Spalding	123.6	371.2	448.6	11.6	11.3	9.9
Stephens	54.5	149.6	171.4	10.6	10.0	7.0
Stewart	12.5	29.5	37.6	9.0	9.6	12.9
Sumter	73.8	190.1	237.9	9.9	10.2	11.9
Talbot	11.9	30.8	36.2	10.0	9.7	8.4

(continued)

TABLE 4 (CONTINUED)

NOMINAL TOTAL PERSONAL INCOME AND ANNUAL AVERAGE RATES OF GROWTH, SELECTED YEARS, FOR GEORGIA, METROPOLITAN AREAS, AND COUNTIES

AREA	TOTAL PERSONAL INCOME ($ MIL., CURRENT) 1970	1980	1982	ANNUAL AVERAGE RATE OF GROWTH (%) 1970-1980	1970-1982	1980-1982
Taliaferro	5.2	13.1	14.5	9.7	8.9	5.2
Tattnall	34.2	96.7	125.9	11.0	11.5	14.1
Taylor	18.5	48.9	60.1	10.2	10.3	10.9
Telfair	26.0	75.2	93.6	11.2	11.3	11.6
Terrell	26.7	61.9	83.9	8.8	10.0	16.4
Thomas	99.9	263.6	324.6	10.2	10.3	11.0
Tift	71.3	217.6	264.9	11.8	11.6	10.3
Toombs	47.7	133.5	167.6	10.8	11.0	12.0
Towns	8.8	29.4	36.6	12.8	12.6	11.6
Treutlen	10.5	30.6	35.1	11.3	10.6	7.1
Troup	134.5	375.2	458.2	10.8	10.8	10.5
Turner	22.6	56.1	76.1	9.5	10.6	16.5
Twiggs	15.4	41.9	49.7	10.5	10.3	8.9
Union	12.8	40.8	50.7	12.3	12.2	11.5
Upson	67.9	171.1	198.7	9.7	9.4	7.8
Walker	163.6	399.6	455.0	9.3	8.9	6.7
Walton	64.9	215.1	262.2	12.7	12.3	10.4
Ware	103.2	269.9	320.8	10.1	9.9	9.0
Warren	14.0	38.2	44.8	10.6	10.2	8.3
Washington	44.0	125.9	149.6	11.1	10.7	9.0
Wayne	48.0	139.7	175.9	11.3	11.4	12.2
Webster	4.6	11.5	15.4	9.6	10.6	15.7
Wheeler	10.5	24.3	32.1	8.8	9.8	14.9
White	16.7	56.3	65.8	12.9	12.1	8.1
Whitfield	188.2	531.6	610.7	10.9	10.3	7.2
Wilcox	17.1	38.3	52.4	8.4	9.8	17.0
Wilkes	26.2	75.1	87.5	11.1	10.6	7.9
Wilkinson	22.2	69.8	84.8	12.1	11.8	10.2
Worth	34.0	94.7	126.3	10.8	11.6	15.5

[a]The total and per capita personal income time series for this area are discontinuous due to a large military wage and salary revision made for 1977-82 only.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, April, 1982. Annual average percentage changes computed by the Division of Research, College of Business Administration, University of Georgia, Athens, Georgia. Income data are in millions of current dollars.

SHIFTS IN COUNTY GROWTH RATES

Table 6 shows the distribution of annual average rates of growth in county real personal income for the three periods examined here. For counties as a whole, the rates shifted toward the middle range of growth over the 1970-1982 period, compared to 1970-1980, with fewer counties falling into the highest and lowest ranges. Over 1980-1982, however, the extremes were much more prominent. Twenty-nine (18.2 percent) of the state's 159 counties had negative or zero annual average rates of growth in TPI for the period, and another 22 (13.8 percent) had rates of less than one percent. In contrast, 32 counties (20.1 percent) had annual average growth rates in real TPI of 5 percent or more over the same years.

Explanations for negative real annual average growth in county TPI over 1980-1982 are not hard to find; high inflation rates at the beginning of the period coupled with back-to-back recessions in 1980 and 1981-1982, severely affected the growth of real personal income in many counties. Figure 1 shows that negative and low-growth counties were clustered along the northwestern and northeastern edges of the state, in the south central area, and in the southeastern coastal and Florida border regions. A variety of forces acted upon total personal income in these geographically-separated areas, including declines in construction-related industries (such as lumbering and forest products) and in the ailing textile and apparel industries.

More detailed data on the major sources of personal income by county for 1980-1982 reveal several different sources of growth in TPI for the 32 leading counties. The four counties around Atlanta (Fayette, Forsyth, Gwinnett, and Paulding), and several others outside that area (Emanuel, Jefferson, Jenkins, and Lee) had large increases in the residence adjustment made by the BEA to compensate for the income of residents earned outside their home counties. In the Atlanta area especially, the effects of income increases resulting from individuals living in suburban counties, but commuting to work in central metropolitan counties, were large.

A strong factor in the relatively high annual average rates of growth in real TPI experienced over 1980-1982 was the rebounding of farm income from its

Figure 2
Annual Average Growth Rates
in Real Total Personal Income
1970-1982

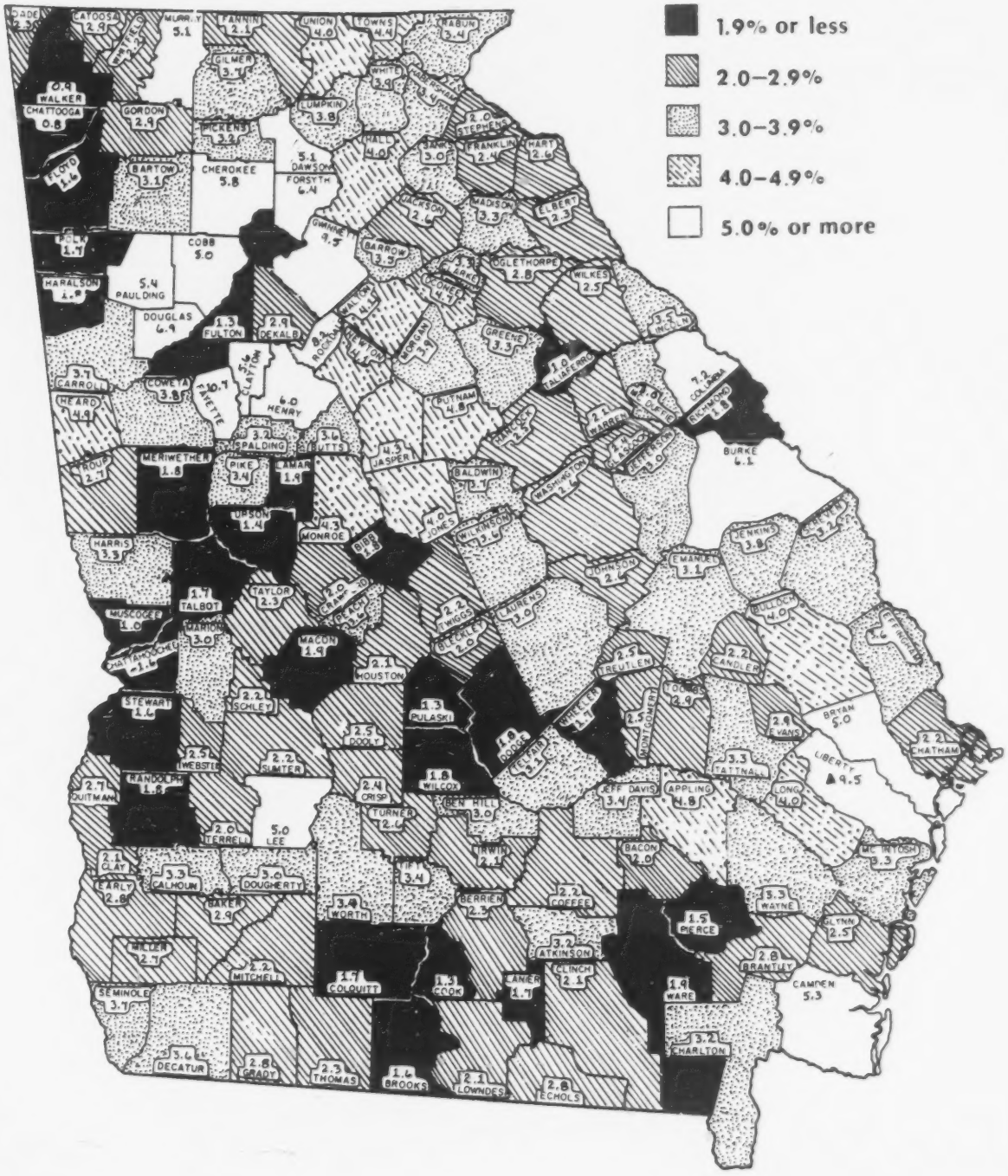


TABLE 5

REAL TOTAL PERSONAL INCOME AND ANNUAL AVERAGE RATES OF GROWTH, SELECTED YEARS, FOR GEORGIA, METROPOLITAN AREAS, AND COUNTIES

AREA	TOTAL PERSONAL INCOME (MIL. OF 1967 $) 1970	1980	1982	ANNUAL AVERAGE RATE OF GROWTH (%) 1970-1980	1970-1982	1980-1982
Georgia	13,158.2	17,903.8	18,682.6	3.1	3.0	2.2
Metropolitan Areas:						
Albany, GA	239.6	336.5	345.3	3.5	3.1	1.3
Athens, GA	260.6	372.4	383.7	3.6	3.3	1.5
Atlanta, GA	5,988.5	8,592.0	8,992.5	3.7	3.4	2.3
Augusta, GA-SC	816.3	1,066.2	1,129.7	2.7	2.7	2.9
Chattanooga, TN-GA	1,096.0	1,391.5	1,361.6	2.4	1.8	-1.1
Columbus, GA-AL	647.5	712.5	720.3	1.0	0.9	0.6
Macon-Warner Robins, GA	703.5	863.6	898.7	2.1	2.1	2.0
Savannah, GA	589.2	739.8	774.6	2.3	2.3	2.3
Counties						
Metropolitan Portion	9,116.7	12,476.3	13,021.1	3.2	3.0	2.2
Nonmetropolitan Portion	4,041.5	5,427.5	5,661.4	3.0	2.8	2.1
Appling	25.5	37.6	44.6	3.9	4.8	8.9
Atkinson	10.1	12.5	14.8	2.1	3.2	8.9
Bacon	17.9	21.9	22.8	2.1	2.0	2.0
Baker	6.4	6.5	9.0	0.2	2.9	17.6
Baldwin	64.5	94.7	99.8	3.9	3.7	2.7
Banks	13.0	18.6	18.4	3.6	3.0	-0.3
Barrow	42.8	63.0	64.8	3.9	3.5	1.4
Bartow	85.2	120.7	122.4	3.5	3.1	0.7
Ben Hill	29.2	41.1	41.8	3.5	3.0	0.9
Berrien	26.7	33.5	35.1	2.3	2.3	2.4
Bibb	439.9	529.1	543.1	1.9	1.8	1.3
Bleckley	22.4	26.5	28.4	1.7	2.0	3.5
Brantley	12.5	16.8	17.3	3.0	2.8	1.4
Brooks	30.1	30.1	36.5	0.0	1.6	10.2
Bryan	12.4	21.8	22.3	5.8	5.0	1.2
Bulloch	61.3	91.0	97.8	4.0	4.0	3.6
Burke	31.0	43.4	62.7	3.4	6.1	20.2
Butts	23.0	33.8	35.2	4.0	3.6	2.0
Calhoun	11.4	13.7	16.8	1.8	3.3	11.1
Camden	25.9	42.7	48.2	5.1	5.3	6.2
Candler	14.9	18.0	19.3	1.9	2.2	3.7
Carroll	107.9	159.5	164.8	4.1	3.7	1.6
Catoosa	59.2	83.8	83.7	3.5	2.9	0.0
Charlton	10.7	15.8	15.7	3.9	3.2	-0.1
Chatham	555.4	691.2	723.3	2.2	2.2	2.3
Chattahoochee	79.1	64.3	65.5	-2.0	-1.6	0.9
Chattooga	46.0	53.9	50.3	1.6	0.8	-3.4
Cherokee	69.8	126.2	137.0	6.1	5.8	4.2
Clarke	163.5	231.7	241.5	3.5	3.3	2.1
Clay	5.7	6.1	7.3	0.8	2.1	9.0
Clayton	316.4	572.0	610.0	6.1	5.6	3.3
Clinch	12.4	15.7	15.8	2.4	2.1	0.4
Cobb	678.9	1,132.7	1,217.1	5.3	5.0	3.7
Coffee	50.3	59.8	65.6	1.7	2.2	4.8
Colquitt	76.2	88.5	93.8	1.5	1.7	2.9
Columbia	50.0	106.0	114.5	7.8	7.2	3.9
Cook	27.6	29.9	32.1	0.8	1.3	3.5
Coweta	86.1	126.1	135.0	3.9	3.8	3.5
Crawford	10.7	13.7	13.6	2.5	2.0	-0.5
Crisp	38.5	48.1	51.1	2.2	2.4	3.1
Dade	20.3	27.9	26.7	3.2	2.3	-2.1
Dawson	7.6	13.6	13.8	6.0	5.1	0.7
Decatur	44.0	64.3	67.2	3.9	3.6	2.3
DeKalb	1,689.8	2,310.8	2,368.0	3.2	2.9	1.2
Dodge	33.7	38.7	41.5	1.4	1.8	3.7
Dooly	23.6	26.7	31.8	1.2	2.5	9.2
Dougherty	225.3	315.4	319.6	3.4	3.0	0.7
Douglas	78.3	165.4	173.7	7.8	6.9	2.5
Early	25.0	29.6	34.9	1.7	2.8	8.6
Echols	3.6	5.0	5.1	3.3	2.8	0.7
Effingham	33.7	48.6	51.3	3.7	3.6	2.8
Elbert	40.6	54.9	53.4	3.1	2.3	-1.3
Emanuel	36.5	46.6	52.7	2.5	3.1	6.4
Evans	15.8	20.6	22.2	2.7	2.9	3.8
Fannin	25.0	33.9	32.1	3.1	2.1	-2.7
Fayette	34.7	104.5	117.6	11.6	10.7	6.1
Floyd	213.5	260.7	257.1	2.0	1.6	-0.7
Forsyth	40.4	74.6	84.7	6.3	6.4	6.6
Franklin	28.5	38.1	37.8	2.9	2.4	-0.4
Fulton	2,339.0	2,687.7	2,749.0	1.4	1.3	1.1

(continued)

TABLE 5 (CONTINUED)

REAL TOTAL PERSONAL INCOME AND ANNUAL AVERAGE RATES OF GROWTH, SELECTED YEARS, FOR GEORGIA, METROPOLITAN AREAS, AND COUNTIES

AREA	TOTAL PERSONAL INCOME (MIL. OF 1967 $) 1970	1980	1982	ANNUAL AVERAGE RATE OF GROWTH (%) 1970-1980	1970-1982	1980-1982
Gilmer	18.9	28.9	29.4	4.3	3.7	0.8
Glascock	5.3	6.6	7.1	2.2	2.4	3.0
Glynn	145.3	196.6	196.2	3.1	2.5	-0.1
Gordon	60.8	84.1	85.5	3.3	2.9	0.8
Grady	35.3	46.0	49.2	2.7	2.8	3.4
Greene	18.0	27.3	26.5	4.3	3.3	-1.4
Gwinnett	210.9	556.3	625.6	10.2	9.5	6.0
Habersham	42.8	64.7	64.1	4.2	3.4	-0.5
Hall	163.4	254.8	262.6	4.5	4.0	1.5
Hancock	14.4	18.9	19.4	2.7	2.5	1.2
Haralson	44.1	53.9	54.9	2.0	1.8	0.9
Harris	25.0	36.5	36.7	3.9	3.3	0.3
Hart	35.0	46.8	47.7	3.0	2.6	.0
Heard	10.5	18.4	18.7	5.8	4.9	0.9
Henry	60.1	111.5	120.9	6.4	6.0	4.1
Houston	201.0	240.2	258.3	1.8	2.1	3.7
Irwin	18.0	17.9	23.1	0.0	2.1	13.4
Jackson	49.2	67.5	67.2	3.2	2.6	-0.2
Jasper	13.8	21.2	22.9	4.4	4.3	3.8
Jeff Davis	21.6	32.1	32.3	4.0	3.4	0.4
Jefferson	33.9	42.9	48.3	2.4	3.0	6.1
Jenkins	15.0	19.0	23.6	2.3	3.8	11.5
Johnson	14.3	19.2	19.4	3.0	2.6	0.6
Jones	23.7	36.2	38.0	4.3	4.0	2.5
Lamar	23.0	29.5	28.8	2.5	1.9	-1.1
Lanier	10.2	11.6	12.5	1.3	1.7	3.8
Laurens	73.8	100.1	105.6	3.1	3.0	2.7
Lee	14.4	21.1	25.7	3.9	5.0	10.3
Liberty[a]	38.5	108.7	114.9	10.9	9.5	2.8
Lincoln	10.4	15.9	15.6	4.3	3.5	-0.8
Long	7.0	10.6	11.1	4.3	4.0	2.6
Lowndes	147.9	184.1	190.7	2.2	2.1	1.8
Lumpkin	15.6	23.8	24.5	4.3	3.8	1.5
McDuffie	35.1	50.2	50.1	3.6	3.0	-0.1
McIntosh	11.1	16.6	16.5	4.1	3.3	-0.4
Macon	24.7	34.1	31.1	3.3	1.9	-4.6
Madison	29.8	43.3	43.8	3.8	3.3	0.6
Marion	9.5	11.4	13.4	1.9	3.0	8.6
Meriwether	41.4	49.6	51.5	1.8	1.8	2.0
Miller	13.0	13.6	17.8	0.4	2.7	14.4
Mitchell	40.4	47.0	52.5	1.5	2.2	5.6
Monroe	25.5	41.4	42.5	4.9	4.3	1.3
Montgomery	12.4	15.7	16.7	2.4	2.5	3.1
Morgan	22.8	34.4	36.3	4.2	3.9	2.7
Murray	27.7	51.5	50.3	6.4	5.1	-1.2
Muscogee	474.5	526.6	534.5	1.0	1.0	0.8
Newton	67.0	104.7	108.3	4.6	4.1	1.7
Oconee	18.1	29.9	31.3	5.1	4.7	2.3
Oglethorpe	14.0	19.2	19.6	3.2	2.8	0.9
Paulding	39.4	67.2	74.1	5.5	5.4	5.0
Peach	38.9	58.1	59.3	4.1	3.6	1.0
Pickens	22.1	31.6	32.2	3.6	3.2	1.0
Pierce	22.0	24.8	26.3	1.2	1.5	2.9
Pike	16.0	22.5	23.9	3.5	3.4	2.9
Polk	68.7	90.0	83.9	2.7	1.7	-3.4
Pulaski	21.0	21.2	24.5	0.1	1.3	7.6
Putnam	18.7	31.7	32.8	5.4	4.8	1.7
Quitman	2.8	3.6	3.8	2.6	2.7	3.3
Rabun	16.4	23.7	24.5	3.7	3.4	1.6
Randolph	16.3	17.7	20.2	0.8	1.8	7.0
Richmond	476.6	551.3	593.8	1.5	1.8	3.8
Rockdale	49.8	117.9	128.6	9.0	8.2	4.4
Schley	6.9	8.2	8.9	1.8	2.2	4.2
Screven	23.7	31.5	34.7	2.9	3.2	4.9
Seminole	15.9	20.9	24.6	2.8	3.7	8.4
Spalding	106.3	150.4	155.2	3.5	3.2	1.6
Stephens	46.9	60.6	59.3	2.6	2.0	-1.1
Stewart	10.7	12.0	13.0	1.1	1.6	4.3
Sumter	63.5	77.0	82.3	2.0	2.2	3.4
Talbot	10.2	12.5	12.5	2.0	1.7	0.2

(continued)

TABLE 5 (CONTINUED)

REAL TOTAL PERSONAL INCOME AND ANNUAL AVERAGE RATES OF GROWTH, SELECTED YEARS, FOR GEORGIA, METROPOLITAN AREAS, AND COUNTIES

AREA	TOTAL PERSONAL INCOME (MIL. OF 1967 $) 1970	1980	1982	ANNUAL AVERAGE RATE OF GROWTH (%) 1970-1980	1970-1982	1980-1982
Taliaferro	4.5	5.3	5.0	1.7	1.0	-2.8
Tattnall	29.4	39.2	43.5	2.9	3.3	5.4
Taylor	15.9	19.8	20.8	2.2	2.3	2.4
Telfair	22.4	30.5	32.4	3.1	3.1	3.1
Terrell	23.0	25.1	29.0	0.9	2.0	7.6
Thomas	85.9	106.8	112.3	2.2	2.3	2.5
Tift	61.3	38.2	91.6	3.7	3.4	1.9
Toombs	41.0	54.1	58.0	2.8	2.9	3.5
Towns	7.6	11.9	12.7	4.6	4.4	3.1
Treutlen	9.0	12.4	12.1	3.2	2.5	-1.0
Troup	115.6	152.0	158.5	2.8	2.7	2.1
Turner	19.4	22.7	26.3	1.6	2.6	7.6
Twiggs	13.2	17.0	17.2	2.5	2.2	0.6
Union	11.0	16.5	17.5	4.2	4.0	3.0
Upson	58.4	69.3	68.7	1.7	1.4	-0.4
Walker	140.7	161.9	157.4	1.4	0.9	-1.4
Walton	55.8	87.2	90.7	4.6	4.1	2.0
Ware	88.7	109.4	111.0	2.1	1.9	0.7
Warren	12.0	15.5	15.5	2.5	2.1	0.1
Washington	37.8	51.0	51.7	3.0	2.6	0.7
Wayne	41.3	56.6	60.8	3.2	3.3	3.7
Webster	4.0	4.7	5.3	1.7	2.5	6.9
Wheeler	9.0	9.8	11.1	0.9	1.7	6.2
White	14.4	22.8	22.8	4.7	3.9	-0.1
Whitfield	161.8	215.4	211.2	2.9	2.2	-1.0
Wilcox	14.7	15.5	18.1	0.5	1.8	8.1
Wilkes	22.5	30.4	30.3	3.1	2.5	-0.3
Wilkinson	19.1	28.3	29.3	4.0	3.6	1.8
Worth	29.2	38.4	43.7	2.8	3.4	6.7

[a]The total and per capita personal income time series for this area are discontinuous due to a large military wage and salary revision made for 1977-82 only.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, April, 1984; data converted to real (1967) dollars, using the U.S. CPI-U, all items, all-city averages for the respective years (1967 = 100), and annual average percentage changes determined by the Division of Research, College of Business Administration, University of Georgia, Athens, Georgia.

depressed level in 1980. In 27 of the 32 counties, all located in agricultural areas of the state, farm income made up a much larger proportion of total personal income than was true for the state as a whole. Because of severe drought, the 1980 farm income levels in these counties dropped from 40 percent to more than 100 percent below their 1979 levels; in 13 of the counties, farm income became negative in 1980. Statewide, farm income declined almost 29 percent between 1979 and 1980. In contrast, 1982 was a good crop year; farm income increased and so did total personal income, especially in counties heavily dependent upon this source of income. When measured against the low levels of 1980, the increased income of 1982 helps to create high annual average rates of growth in TPI. Such results are not unusual; the BEA identifies farm income as among the most volatile elements in total personal income, precisely because of its sensitivity to changes in weather, world markets, and governmental programs.

Burke County's high annual average rate of growth in real total personal income over 1980-1982 illustrates the impacts that a major construction project can have in a local area. Beginning in 1981, nuclear power plant construction led to the rapid growth of construction-derived personal income in that county. Even with a large negative residence adjustment (reflecting income earned in the county but subtracted from county personal income because the earners lived elsewhere), Burke became the most rapidly growing county in the state, when real total personal income was considered. The negative residence adjustment indicated substantial spillover: income was exported to other areas, possibly including neighboring Jefferson, Jenkins, and Emanuel counties, each of which had large increases in the residence adjustment over 1980-1982, and for each of which the adjustment was a relatively large percentage of total personal income.

GROWTH RATES IN COUNTY TPI

Between 1970-1982, only 17 counties had annual average growth rates of 5 percent or more in real total personal income. Most of them (see Figure 2) were clustered around cities or located in areas heavily influenced by large private or military installations,

Table 6
Annual Average Rates of Growth in Real Total Personal Income of Georgia Counties, Selected Periods

Rate of Growth	1970-1980 # of Counties	1970-1980 % of Total	1980-1982 # of Counties	1980-1982 % of Total	1970-1982 # of Counties	1970-1982 % of Total
Negative or zero	3	1.9	29	18.2	1	0.6
0.1 - 0.9	9	5.7	22	13.8	2	1.3
1.0 - 1.9	26	16.4	21	13.2	25	15.7
2.0 - 2.9	37	23.3	22	13.8	54	34.0
3.0 - 3.9	42	26.4	25	15.7	45	28.3
4.0 - 4.9	23	14.5	7	4.4	14	8.8
5.0 or over	18	11.3	32	20.1	17	10.7
Data not comparable[a]	1	0.6	1	0.6	1	0.6
Total	159	100.1[b]	159	99.8[b]	159	100.0

[a]Data for Liberty County are not comparable because of a large revision in military salaries for 1977-1982 only.

[b]Percentages may not add to 100 because of rounding.

Source: Based on U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, April 1984, income data adjusted for inflation by the CPI-U, U.S. all items, all cities annual averages for the respective years (1967 = 100). Real income and percentage distributions computed by Division of Research, College of Business Administration, The University of Georgia.

such as Burke, Bryan, Columbia, Liberty and Camden counties. The relatively high rate of growth for Liberty County must be discounted, since BEA estimates for 1977-1982 made a large, one-time-only adjustment of military wage and salary income for those years, and the resulting total and per capita personal income estimates are discontinuous with those for earlier years. In some cases, annual average rates of growth were high in earlier years but dropped sharply over 1980-1982 to low or negative levels. In Murray County, for example, the relatively high annual average rate of growth in real TPI for 1970-1982 depended largely on rapid increases in textile-related manufacturing income over 1970-1980; its rate of growth was negative in 1980-1982.

Over 1970-1982, only Chattahoochee County showed a negative annual average rate of growth (-1.6 percent) in real TPI, although its annual average rate of growth for 1980-1982 was low but positive (0.9 percent). Much of the county's personal income —largely military and civilian government pay—is credited elsewhere through a negative residence adjustment. The Columbus MSA (of which Chattahoochee County is a part) also lost ground relative to other MSAs in the state, particularly from 1970 to 1980. Several central-city MSA counties also had low annual average rates of growth in real total personal income over 1970-1982, including Bibb (1.8 percent), Fulton (1.3 percent), Muscogee (1 percent), and Richmond Counties (1 percent).

IMPLICATIONS OF GROWTH IN TPI

Contrasting patterns of annual average rates of growth in county real total personal income during 1970-1980, 1970-1982, and 1980-1982, offer evidence of the different effect of short-run and longer-run economic changes. Although the state as a whole increased its share of U.S. total personal income between 1970 and 1980, in many counties growth ceased or slowed sharply between 1980 and 1982. Short term fluctuations in farm and construction income contributed to relatively high short-run growth in other counties.

Although total personal income is a much-used measure of overall economic status, it does not permit direct comparisons of income between areas. The relative standings of states and local areas are given by a related measure, per capita personal income. Changes in the per capita personal incomes for Georgia and its subdivisions will be explored in the upcoming issue.

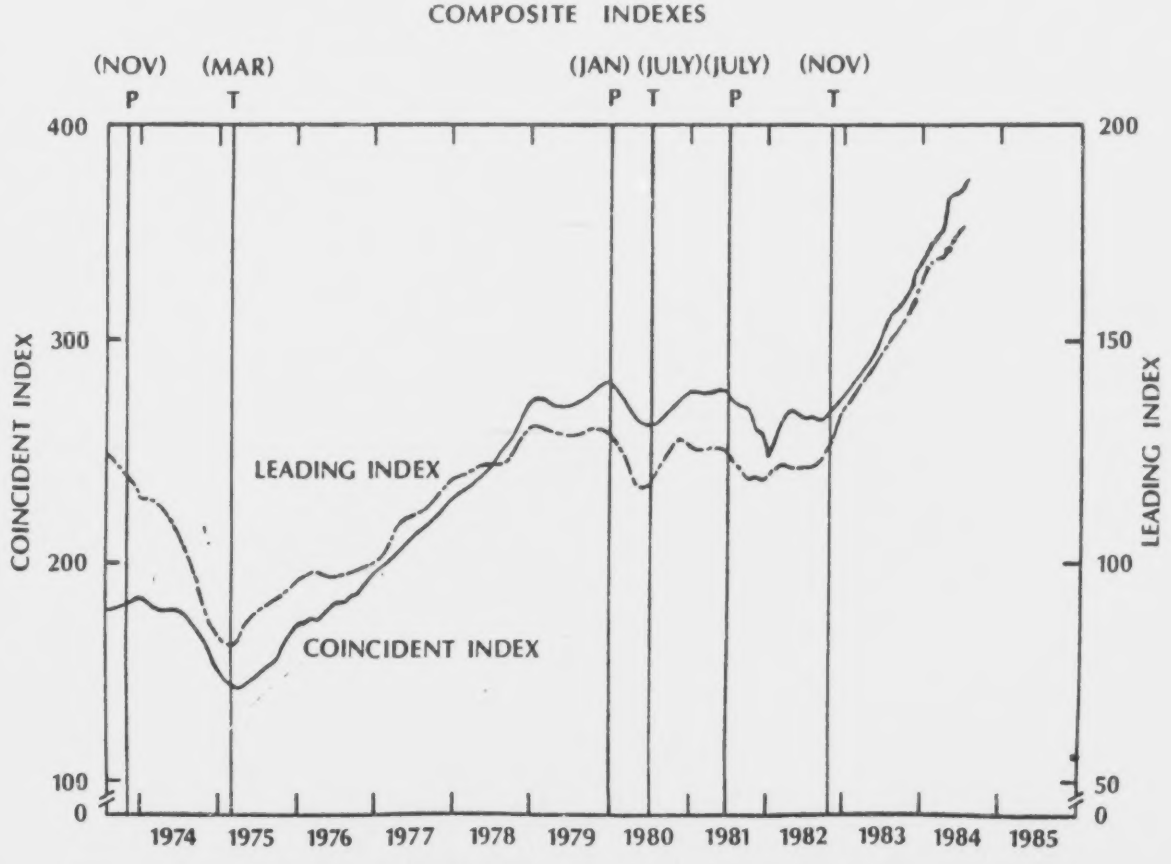
Composite Indexes of Leading and Coincident Georgia Economic Indicators

The June statistics suggested that the Georgia economy was still strong, as the coincident indicator rose 1.3 percent over the month. The gain was primarily the result of a 2.9 percent seasonally adjusted increase in real retail sales, and showed that consumers had not abandoned the stores. On the seasonally adjusted basis, real weekly earnings in manufacturing and nonagricultural employment grew by .9 and .6 percent, respectively.

After three months of lackluster behavior the leading indicator jumped 2.2 percent in June. The upward movement was due to a 13.1 percent drop in initial unemployment claims accompanied by gains in seasonally adjusted Help Wanted Advertisements, Atlanta, and new housing permits. After declining for the past few months, the permit series rebounded by 7.3 percent in June.

In July, the coincident indicator rose another 1.8 percent, due to a .3 percent month-over-month advance in Help Wanted Advertisements, Atlanta, and a .5 percent decline in seasonally adjusted unemployment claims. New housing permits declined 15 percent, its third drop since April.

A 1.1 percent rise in nonagricultural employment helped pushed July's leading indicator up .8 percent. Real weekly earnings in manufacturing also rose .2 percent; while seasonally adjusted real retail sales declined a modest .1 percent. All in all, a continued moderation in the state's economy is expected during the last two quarters of 1984.



Note: P (peak) indicates the end of general business expansion at the national level and the beginning of recession; T (trough) indicates the end of general business recession at the national level and the beginning of expansion.

GEORGIA BUSINESS STATISTICS

SERIES	JULY 1984	JUNE 1984	MAY 1984	JULY 1983
Georgia Leading Indicators Index[1] (1969=100)	173.37	171.95	169.69	150.58
Georgia Coincident Indicators Index[1] (1969=100)	373.98	367.50	363.95	310.17
Nonagricultural Employment[2] (thousands)	2407.5[p]	2411.9	2386.9	2272.2
Manufacturing Employment[2] (thousands)	531.3[p]	535.0	530.5	508.1
Average Weekly Earnings, Manufacturing[2] (dollars)	307.22[p]	312.23	305.11	288.86
Help Wanted Advertising, Atlanta Index[3] (1967=100)	293	292	258	202
Taxable Retail Sales[4] ($ millions)	2938.1	3079.0	2993.5	2482.4
Building Permits[5]				
Residential Housing Units, Private (thousands)	5.6	7.1	7.0	5.7
Value of Residential Housing ($ thousands)	210319	285163	281234	209116
Value of Nonresidential Construction ($ thousands)	122540	203769	158635	146642
Industrial Buildings	10148	15423	14513	18215
Office, Bank and Other Professional Buildings	21302	67986	77533	58320
Stores and Other Merchantile Buildings	24895	35825	26486	9990
Other	66195	84535	70006	60081
Consumer Price Index[6] (CPI-U, all items)				
South U.S. (December, 1977 = 100)	-	168.0	-	161.5[a]
South/Population more than 1,250,000	-	167.6	-	161.2[a]
South/Population 385,000 to 1,250,000	-	169.1	-	161.7[a]
South/Population 75,000 to 385,000	-	167.1	-	161.2[a]
South/Population 2,500 to 75,000	-	168.4	-	162.0[a]
Atlanta (1967=100)	-	314.0	-	302.3[a]
Prices Received by Farmers, Georgia Index[7] (1977=100)	133[r]	134	136	127
	1984:I	1983:IV	1983:III	1983:II
Total Personal Income[8] ($ millions)	62839	61025	59613	58459

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[1] Georgia Economic Forecasting Project, Division of Research, College of Business Administration, University of Georgia. Initial monthly values subject to revision.

[2] Labor Information Systems, Georgia Department of Labor

[3] Series published by The Conference Board, Inc.

[4] Derived by the Division of Research, College of Business Administration, University of Georgia, from data of the Sales and Use Tax System, Georgia Department of Revenue

[5] U.S. Department of Commerce, Bureau of the Census

[6] U.S. Department of Labor, Bureau of Labor Statistics, Southeastern Regional Office

[7] Georgia Department of Agriculture, Georgia Crop Reporting Service

[8] U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

[a] June, 1983

[r] Revised

[p] Preliminary

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